Alabama Department of Environmental Management

MAJOR SOURCE OPERATING PERMIT

PERMITTEE: **Rock-Tenn Mill Company, LLC**

FACILITY NAME: **Rock-Tenn Mill Company, LLC**

FACILITY/PERMIT NO.: 105-0001

LOCATION: Demopolis, AL

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code 1975, §§22-28-1 to 22-28-23 (1997 Rplc. Vol. and 2006 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code 1975, §§22-22A-1 to 22-22A-15, (1997 Rplc. Vol. and 2006 Cum. Supp.) and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

*Pursuant to the **Clean Air Act of 1990**, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the **Clean Air Act of 1990** are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.*

Issuance Date:

Expiration Date:

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General Permit Provisos

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1. Transfer	
This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another, except as provided in Rule 335-3-16-.13(1)(a)5.	Rule 335-3-16-.02(6)
2. Renewals	
An application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of this permit.	Rule 335-3-16-.12(2)
The source for which this permit is issued shall lose its right to operate upon the expiration of this permit unless a timely and complete renewal application has been submitted within the time constraints listed in the previous paragraph.	
3. Severability Clause	
The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivision, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.	Rule 335-3-16-.05(e)
4. Compliance	
(a) The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.	Rule 335-3-16-.05(f)
(b) The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.	Rule 335-3-16-.05(g)
5. Termination for Cause	

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This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.	Rule 335-3-16-.05(h)
6. Property Rights	
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.	Rule 335-3-16-.05(i)
7. Submission of Information	
The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.	Rule 335-3-16-.05(j)
8. Economic Incentives, Marketable Permits, and Emissions Trading	
No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.	Rule 335-3-16-.05(k)
9. Certification of Truth, Accuracy, and Completeness:	
Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.	Rule 335-3-16-.07(a)
10. Inspection and Entry	
Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Alabama Department of Environmental Management and EPA to conduct the following:	Rule 335-3-16-.07(b)

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(a) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit;	
(b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit;	
(c) Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;	
(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.	
11. Compliance Provisions	
(a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.	Rule 335-3-16-.07(c)
(b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.	
12. Compliance Certification	
A compliance certification shall be submitted annually within 60 days of the anniversary date of issuance of this permit.	Rule 335-3-16-.07(e)
(a) The compliance certification shall include the following:	
(1) The identification of each term or condition of this permit that is the basis of the certification;	
(2) The compliance status;	
(3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements);	
(4) Whether compliance has been continuous or intermittent;	

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(5) Such other facts as the Department may require to determine the compliance status of the source; (b) The compliance certification shall be submitted to: Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463 and to: Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303	
13. <u>Reopening for Cause</u> Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit: (a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire. (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit. (c) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.	Rule 335-3-16-.13(5)
14. <u>Additional Rules and Regulations</u>	

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This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.	§22-28-16(d), Code of Alabama 1975, as amended
15. Equipment Maintenance or Breakdown	
(a) In the case of shutdown for more than one hour of air pollution control equipment (which operates pursuant to any permit issued by the Director) for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. Such prior notice shall include, but is not limited to the following:	Rule 335-3-1-.07(1), (2)
(1) Identification of the specific facility to be taken out of service as well as its location and permit number;	
(2) The expected length of time that the air pollution control equipment will be out of service;	
(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period;	
(4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period;	
(5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.	
(b) In the event that there is a breakdown of equipment or upset of process for a period of greater than one hour in such a manner as to cause, or is expected to cause, increased emissions of air contaminants which are above an applicable standard, the person responsible for such equipment shall notify the Director within 24 hours or the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director shall be notified when the breakdown has been corrected.	
16. Operation of Capture and Control Devices	

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All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants for purposes of meeting applicable requirements. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.	§22-28-16(d), Code of Alabama 1975, as amended
17. Obnoxious Odors	
This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.	Rule 335-3-1-.08
18. Fugitive Dust	
Reasonable precautions to prevent fugitive dust shall be taken so that provisions of the Department's rules and regulations shall not be violated.	Rule 335-3-4-.02
19. Additions and Revisions	
Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-.13 or 335-3-16-.14.	Rule 335-3-16-.13 and .14
20. Recordkeeping Requirements	
(a) Records of required monitoring information of the source shall include the following:	Rule 335-3-16-.05(c)2.
(1) The date, place, and time of all sampling or measurements;	
(2) The date analyses were performed;	
(3) The company or entity that performed the analyses;	
(4) The analytical techniques or methods used;	
(5) The results of all analyses; and	
(6) The operating conditions that existed at the time of sampling or measurement.	

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(b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit	
21. Reporting Requirements	
(a) Reports to the Department of any required monitoring shall be submitted at least every 6 months. The reports shall be submitted within 60 days following the end of the six month period. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).	Rule 335-3-16-.05(c)3.
(b) Deviations from permit requirements shall be reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.	
22. Emission Testing Requirements	
Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.	Rule 335-3-1-.05(3) and Rule 335-3-1-.04(1)
The Air Division must be notified in writing at least 10 days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.	
To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:	
(1) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.	Rule 335-3-1-.04

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(2) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures require probe cleaning).	
(3) A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity.	
(4) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.	
A pretest meeting may be held at the request of the source owner or the Air Division. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.	Rule 335-3-1-.04
All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division or an alternative time is specified by an applicable regulation.	
23. <u>Payment of Emission Fees</u>	
Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code R. 335-1-7-.04.	Rule 335-1-7-.04
24. <u>Other Reporting and Testing Requirements</u>	
Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.	Rule 335-3-1-.04(1)
25. <u>Title VI Requirements (Refrigerants)</u>	
Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR Part 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F.	40 CFR Part 82
No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing,	

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maintenance, or disposal of any device except as provided in 40 CFR Part 82, Subpart F. The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.	
26. Chemical Accidental Prevention Provisions If a chemical listed in Table 1 of 40 CFR Part 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then: (a) The owner or operator shall comply with the provisions in 40 CFR Part 68. (b) The owner or operator shall submit one of the following: (1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR Part 68 § 68.10(a) or, (2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan.	40 CFR Part 68
27. Display of Permit This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will be made readily available for inspection by any or all persons who may request to see it.	Rule 335-3-14-.01(1)(d)
28. Circumvention No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.	Rule 335-3-1-.10
29. Visible Emissions Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute	Rule 335-3-4-.01(1)

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average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.	
30. Fuel-Burning Equipment	
(a) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.03.	Rule 335-3-4-.03
(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Part 335-3-5-.01.	Rule 335-3-5-.01
31. Process Industries – General	
Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.04.	Rule 335-3-4-.04
32. Averaging Time for Emission Limits	
Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.	Rule 335-3-1-.05

No. 3 Recovery Furnace
Informational Summary

Description: No. 3 Recovery Furnace
Utilities

Emission Unit No: 022

Installation Date: 1992 **Reconstruction / Modification date**: October 2003

Operating Capacity: 180,000 lb BLS/hr
529.2V MMbtu/hr on fossil fuels

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

40 CFR Part 60 Subpart BB
40 CFR Part 60 Subpart Db (When burning fossil Fuels)
40 CFR Part 63 Subpart MM

Pollutants Emitted

Emission Point #	Point Description	Pollutant	Emission Limit	Standard
X022	No. 3 Recovery Furnace	PM	$\leq$ 0.021 gr/dscf @ 8% O_2 and/or $\leq$ 44.9 lbs/hr	Rule 335-3-10-.02 (1), (28) Rule 335-3-14-.04 (9)
X022	No. 3 Recovery Furnace	TRS	$\leq$ 5 ppm @ 8% O_2 and/or $\leq$ 11.0 lbs/hr	Rule 335-3-10-.02 (1) and (28)
X022	No. 3 Recovery Furnace	SO_2	$\leq$ 100 ppm at 8% O_2 and/or $\leq$ 252.9 lbs/hr when BLS are fired. The fuel oil Sulfur content $\leq$ 0.05%	Rule 335-3-14
X022	No. 3 Recovery Furnace	NO_x	$\leq$ either 110 ppmv at 8% O_2 and/or $\leq$ 199.9 lbs/hr	Rule 335-3-14
X022	No. 3 Recovery Furnace	Opacity	$\leq$ 20% opacity or greater	Rule 335-3-14
X022	No. 3 Recovery Furnace	CO	$\leq$ 300 ppm @ 8% O_2 and/or $\leq$ 331.9.0 lbs/hr	Rule 335-3-14
X022	No. 3 Recovery Furnace	VOC	$\leq$ 0.04 lb/MMBtu and/or $\leq$ 43.2 lbs/hr (as carbon).	Rule 335-3-14
X022	No. 3 Recovery Furnace	SAM	$\leq$ 3.78 lbs/hr	Rule 335-3-14
X022	No. 3 Recovery Furnace	HAPS	PM as a surrogate $\leq$ 0.044 gr/sdcf at 8% O_2	Rule 335-3-11-.06 (1) and (38)

Permitted Fuels

Fuel	Max % Sulfur	Max % Ash
No. 2 Fuel Oil	0.05	N/A
Natural Gas	N/A	N/A

No. 3 Recovery Furnace Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to federal New Source Performance Standards 40 CFR 60 Subpart A and Subpart BB.	Rule 335-3-10-.02 (1) and (28)
3. This Source is subject to the requirements of ADEM Admin. Code 335-3-14-.04 (9)(b) for particulate matter, total reduced sulfur, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds and sulfuric acid mists.	Rule 335-3-14-.04 (9)
4. This source is subject to the applicable requirements of Rule 335-3-10-.02(2)((b) New Source Performance Standards Subpart Db for nitrogen oxide emissions and 40 CFR 60 Subpart A, General Provisions when distillate fuel oil or natural gas are fired.	Rule 335-3-10-.02 (1) and (2)(b)
5. This source is subject to the requirements of National Emission Standards for Hazardous Pollutants General Provisions as provided for in Table 1 of Subpart MM and 40 CFR Part 63 Subpart MM.	Rule 335-3-11-.06 (1) and (38)
2. Emission Standards	
1. Particulate matter emissions shall not exceed 0.021 gr/sdcf at 8% oxygen and shall not exceed 44.9 pounds per hour.	Rule 335-3-10-.02 (1), (28) and Rule 335-3-14-.04 (9)
2. Total reduced sulfur emissions shall not exceed 5 ppmv at 8% oxygen and shall not exceed 11.0 pounds per hour.	Rule 335-3-10-.02 (1), (28) and Rule 335-3-14-.04 (9)
3. Sulfur dioxide emissions shall not exceed 100 ppm at 8% oxygen and shall not exceed 252.9 pounds per hour when black liquor is fired.	Rule 335-3-10-.02 (1), (28) and Rule 335-3-14-.04 (9)
4. The fuel oil sulfur content shall not exceed 0.05%	Rule 335-3-14-.04 (9)
5. Nitrogen oxide emissions shall not exceed either 110 ppmv at 8% oxygen or 199.9 pounds per hour.	Rule 335-3-10-.02 (1), (28) and Rule 335-3-14-.04 (9)
6. The nitrogen oxide emission rates apply at all times except during start-up and shut-down. Start-up is defined as the period between the introduction of fire into the boiler until the boiler is capable of operation only on black liquor and shall not exceed 16 hours. During shut-down, liquor is gradually replaced with oil until the unit fires only oil. Then the oil is gradually removed. Shut-down shall not exceed 12 hours.	Rule 335-3-14-.04 (9)
7. The unit shall not exhibit 20% opacity or greater.	Rule 335-3-14-.04 (9)
8. Carbon monoxide emissions shall not exceed 300 ppm at 8% oxygen and shall not exceed 331.9 pounds per hour.	Rule 335-3-14-.04 (9)
9. Volatile organic compound emissions shall not exceed 0.04 lb/mmbtu and shall not exceed 43.2 pounds per hour (as carbon).	Rule 335-3-14-.04 (9)
10. Sulfuric acid mists emissions shall not exceed 3.78 pounds per hour.	Rule 335-3-14-.04 (9)
11. Pursuant to 40 CFR Part 60 Section 60.44b(c) or 60.44b(d), depending on the	Rule 335-3-14

combination of fossil fuel fired, the fossil fuel annual capacity factor shall be ten (10) percent or less. The annual capacity factor is defined as the ratio between the actual heat input to the boiler from fossil fuel during a calendar year and the potential heat input to the boiler had it been operated 8,760 hours at the maximum steady state design heat input.	
12. Pursuant to 40 CFR Part 63, Subpart MM, as a surrogate for HAPs, the particulate matter emissions from this unit shall not exceed 0.044 gr/sdcf at 8% oxygen.	Rule 335-3-11-.06 (1) and (38)
13. Pursuant to 40 CFR Part 63, Subpart MM, this unit's opacity shall not exceed 35 percent for 6 percent or more of the operating time within any quarterly period.	Rule 335-3-11-.06 (1) and (38)
3. Compliance and Performance Test Methods and Procedures	
1. Compliance with the particulate matter emission limit shall be determined in accordance with the 40 CFR Part 60 Method 5 or Method 17 or other method approved by the Department.	Rule 335-3-14-.02
2. Compliance with the total reduced sulfur emission limit shall be determined in accordance with 40 CFR Part 60 Method 16, 16A or 16B or other method approved by the Department .	Rule 335-3-14-.02
3. Compliance with the sulfur dioxide emission limit shall be determined in accordance with the 40 CFR Part 60 Method 6, 6a or 6c or other method approved by the Department.	Rule 335-3-14-.02
4. Compliance with the nitrogen oxide emission limit shall be determined in accordance with the 40 CFR Part 60 Method 7 or 7e or by the continuous emissions monitor or other method approved by the Department.	Rule 335-3-14-.02
5. Compliance with the opacity limit shall be determined in accordance with 40 CFR Part 60 Appendix A Method 9 or other method approved by the Department.	Rule 335-3-14-.02
6. Compliance with the carbon monoxide emission limit shall be determined in accordance with the 40 CFR Part 60 Method 10 or other method approved by the Department.	Rule 335-3-14-.02
7. Compliance with the volatile organic compound emission limit shall be determined in accordance with the 40 CFR Part 60 Method 18, 25, 25A or 25B or other method approved by the Department.	Rule 335-3-14-.02
8. The fuel oil sulfur content shall be measured in accordance with fuel oil sampling and analysis procedures in the appropriate ASTM method or other method approved by the Department.	Rule 335-3-14-.02
9. Compliance with the sulfuric acid mists emission limit shall be determined in accordance with the 40 CFR Part 60 Method 8, CTM 13, CMT 13A, or CMT13B or other method approved by the Department.	Rule 335-3-14-.02
4. Emission Monitoring	
1. A particulate matter emission test shall be performed at least once per year.	Rule 335-3-14-.02
2. A continuous emission monitoring system for the measurement of opacity shall be installed, calibrated, operated and maintained.	Rule 335-3-14-.02
3. Pursuant to 40 CFR Part 63, Subpart MM, the Continuous Opacity Monitoring System shall meet the provisions of §63.6 (h), §63.8, and §63.864 (d)(1)	Rule 335-3-11-.06 (1) and (38)

through (d)(4).	
4. For particulate matter and opacity periodic monitoring, if the average of any ten consecutive six-minute opacity averages exceeds 20 percent the cause is to be investigated and appropriate corrective action is to be taken.	Rule 335-3-16-.05
5. For particulate matter, sulfur dioxide, carbon monoxide, volatile organic compound and sulfuric acid mists periodic monitoring, if any three-hour block average liquor firing rate is greater than 110 percent of its average value set by the required complying periodic test or a complying test approved by the Department, the feed rate is to be lowered until compliance is successfully demonstrated at the higher rate.	Rule 335-3-16-.05
6. A continuous emission monitoring system for the measurement of total reduced sulfur and oxygen shall be installed, calibrated, operated and maintained.	Rule 335-3-14-.02
7. A sulfur dioxide emission test shall be performed at least once every five years.	Rule 335-3-14-.02
8. A continuous emission monitoring system for the measurement of nitrogen oxides shall be installed, calibrated, operated and maintained.	Rule 335-3-14-.02
9. A carbon monoxide emission test shall be performed at least once every five years.	Rule 335-3-14-.02
10. A volatile organic compound emission test shall be performed at least once every five years.	Rule 335-3-14-.02
11. A sulfuric acid mists emission test shall be performed at least once every five years.	Rule 335-3-14-.02
12. For sulfur dioxide periodic monitoring, obtain fuel oil receipts from the supplier that certify sulfur content in fuel for every load received by the mill.	Rule 335-3-14-.02
5. Recordkeeping and Reporting Requirements	
1. A particulate matter emission test report shall be submitted to the Department at least once per year.	Rule 335-3-14-.02
2. Records of all six-minute average opacities shall be made and maintained on file available for inspection for a period of five years.	Rule 335-3-14-.02
3. Records of all three-hour block average liquor-firing rates shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-14-.02
4. A written report of excess total reduced sulfur emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information:	Rule 335-3-14-.02
a. The magnitude of excess emissions greater than 5 parts per million adjusted to 8 percent oxygen computed from twelve hour block averages (data recorded during periods of total reduced sulfur emission monitoring system breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages).	
b. The date and time of commencement and completion of each time period of excess emissions.	
c. The nature and cause of the excess emissions (if known) and the	

corrective action taken or preventative measures adopted.

d. The date and time identifying each period during which the total reduced sulfur emission monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments.

e. When no excess emissions have occurred and the total reduced sulfur emission monitoring system was not inoperative or did not require repairs or adjustments, such information will be stated in the report.

5. A written report of the excess nitrogen oxide emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information: | Rule 335-3-14-.02

a) The magnitude of excess emissions greater than 110 ppm @ 8 percent oxygen computed from three-hour rolling averages (data recorded during periods of monitoring system breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages).

b) The date and time of commencement and completion of each time period of excess emissions.

c) The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted.

d) The date and time identifying each period during which the monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments.

e) When no excess emissions have occurred and the monitoring system was not inoperative or did not require repairs or adjustments, such information will be stated in the report.

6. A written report of the excess opacity emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information: | Rule 335-3-14-.02

a) The magnitude of excess emissions 20 percent or greater, computed from six-minute averages (data recorded during periods of monitoring system breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages).

b) The date and time of commencement and completion of each time period of excess emissions.

c) The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted.

d) The date and time identifying each period during which the monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments.

e) When no excess emissions have occurred and the monitoring system was not inoperative or did not require repairs or adjustments, such information will be stated in the report.

7. A sulfur dioxide emission test report shall be submitted to the Department at least every five years. | Rule 335-3-14-.02

8. A carbon monoxide emission test report shall be submitted to the Department at least every five years.	Rule 335-3-14-.02
9. A volatile organic compound emission test report shall be submitted to the Department at least every five years.	Rule 335-3-14-.02
10. A sulfuric acid mists emission test report shall be submitted to the Department at least every five years.	Rule 335-3-14-.02
11. Records of the amount of fossil fuel fired shall be made and the annual capacity factor calculated for each calendar year and maintained on file available for review for at least **five years**.	Rule 335-3-14-.02
12. Fuel receipts from the supplier that certify sulfur content in fuel for every load received by the mill shall be maintained on site available for inspection for at least five years.	Rule 335-3-14-.02
13. Pursuant to 40 CFR Part 63, Subpart MM the facility must develop a written Start-up, Shut-down, and Malfunction plan that contains the information required in §63.6 (e) and §63.866 (a).	RULE 335-3-11-.06 (1) AND (38)
14. Pursuant to 40 CFR Part 63, Subpart MM the facility must maintain records of any occurrence when corrective action is required when the average of ten consecutive 6-minute averages result in a measurement greater than 20 percent opacity, and when a violation is noted when opacity is greater than 35 percent for 6 percent or more of the operating time within any quarterly period.	RULE 335-3-11-.06 (1) AND (38)
15. Pursuant to 40 CFR Part 63, Subpart MM the facility must maintain records of the black liquor firing rates in terms of tons/day or Mg/day.	RULE 335-3-11-.06 (1) AND (38)
16. The facility shall maintain records of all 6-minute periods when the opacity is greater than 35%.	Rule 335-3-14-.02
17. Pursuant to 40 CFR Part 63, Subpart MM the facility must submit an Excess Emissions Report containing the information required in §63.867 (c), as well as the number and duration of occurrences when the average of ten consecutive 6-minute averages result in a measurement greater than 20 percent opacity, and when the opacity is greater than 35 percent for 6 percent or more of the operating time within any quarterly period. The report is required to be submitted quarterly if the unit exceeds 35 percent for 6 percent or more of the operating time within any quarterly period, or semi-annually if the unit does not.	RULE 335-3-11-.06 (1) AND (38)

No. 3 Smelt Tank
Informational Summary

Description: No. 3 Smelt Tank
Utilities

Emission Unit No: 023

Installation Date: 1992 **Reconstruction / Modification date**: N/A

Operating Capacity: 180,000 lb BLS/hr

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

40 CFR Part 60 Subpart BB
40 CFR Part 63 Subpart MM

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X023	No. 3 Smelt Dissolving Tank	PM	≤ the more stringent of 0.12 lbs/ton BLS and 8.3 lbs/hr.	Rule 335-3-10-.02 (1) and (28) and Rule 335-3-14
X023	No. 3 Smelt Dissolving Tank	TRS	≤ the more stringent of 0.033 lb/ton of BLS and 2.3 lbs/hr.	Rule 335-3-10-.02 (1) and (28) and Rule 335-3-14
X023	No. 3 Smelt Dissolving Tank	SO_2	≤ 5 lbs/hr.	Rule 335-3-14-.04
X023	No. 3 Smelt Dissolving Tank	Opacity	≤ 20 % with one 6-minute period up to 40 % in any one hour period.	Rule 335-3-4-.01
X023	No. 3 Smelt Dissolving Tank	HAPS	PM as a surrogate for HAPS ≤ 0.2 lbs/ton of BLS.	Rule 335-3-11-.06 (1) and (38)

No. 3 Smelt Dissolving Tank Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to federal New Source Performance Standards 40 CFR 60 Subpart A and Subpart BB.	Rule 335-3-10-.02 (1) and (28)
3. This source is subject to the applicable requirements of Rule 335-3-14-.04 for particulate matter, total reduced sulfur, and sulfur dioxide.	Rule 335-3-14-.04
4. This source is subject to the requirements of ADEM Admin. Code 335-3-4-.01 for opacity.	Rule 335-3-4-.01
5. This source is subject to the requirements of National Emission Standards for Hazardous Pollutants General Provisions as provided for in 40 CFR Part 63 Subpart MM.	Rule 335-3-11-.06 (1) and (38).
2. Emission Standards	
1. Particulate matter emissions shall not exceed the more stringent of 0.12 pounds per ton of black liquor solids and 8.3 pounds per hour.	Rule 335-3-10-.02 (1) and (28) and Rule 335-3-14
2. Total reduced sulfur emissions shall not exceed the more stringent of 0.033 lb/ton of black liquor solids and 2.3 pounds per hour.	Rule 335-3-5-.04 and Rule 335-3-14
3. Sulfur dioxide emissions shall be no greater than 5 pounds per hour.	Rule 335-3-14
4. Opacity shall not exceed twenty percent as determined by six-minute average. During one six-minute period in any sixty minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as forty percent.	Rule 335-3-4-.01
5. In accordance with 40 CFR Part 63 Subpart MM, particulate matter emissions, as a surrogate for HAPS, shall not exceed 0.20 pounds per ton of black liquor solids fired.	Rule 335-3-11-.06 (1) and (38)
3. Compliance and Performance Test Methods and Procedures	
1. Compliance with the particulate matter emission limit shall be determined in accordance with the 40 CFR Part 60 Method 5 or other method approved by the Department.	Rule 335-3-14-.02
2. Compliance with the total reduced sulfur emission limit shall be determined in accordance with 40 CFR Part 60 Method 16, 16A or 16B or other method approved by the Department.	Rule 335-3-14-.02
3. Compliance with the sulfur dioxide emission limit shall be determined in accordance with 40 CFR Part 60 Method 6, 6a or 6c or other method approved by the Department.	Rule 335-3-14-.02
4. Compliance with the opacity limit shall be determined in accordance with the 40 CFR Part 60 Method 9 or other method approved by the Department.	Rule 335-3-4-.01
4. Emission Monitoring	
1. A particulate matter emission test shall be performed at least once per year.	Rule 335-3-14-.02
2. A total reduced sulfur emission test shall be performed at least once every five years to certify compliance and set periodic monitoring parameters.	Rule 335-3-14-.02

3. A sulfur dioxide emission test shall be performed at least once every five years.	Rule 335-3-14-.02
4. For particulate matter, total reduced sulfur and sulfur dioxide periodic monitoring, if any three-hour block average liquor firing rate is greater than 110 percent of its value set by the required complying periodic test or a complying test approved by the Department, the feed rate is to be lowered until compliance is successfully demonstrated at the higher rate.	Rule 335-3-16-.05
5. Pursuant to 40 CFR Part 63, Subpart MM, the facility shall monitor the wet scrubber liquid supply flow rate (combined flow to the fan and lower zone spray nozzles) and the fan rpm. The parametric monitoring system shall meet the requirements listed in §63.8(c). Monitoring of the flow rate and fan rpm is an approved alternative to the requirements listed in §63.864 (e)(10). This unit shall not have 6 or more 3-hour average parameter values within any 6-month reporting period that are outside the range of values established in accordance with 63.864 (j) and (k). No more than one exceedance will be attributed in any given 24-hour period.	RULE 335-3-11-.06 (1) AND (38)
6. For total reduced sulfur and sulfur dioxide periodic monitoring, if any three-hour block average wet scrubber weak wash flow rate to the fan or fan rpm is less than 90 percent of its average value set by the required complying periodic test or a complying test approved by the Department, the cause is to be investigated and appropriate corrective action is to be taken within twenty-four hours.	Rule 335-3-16-.05
7. Since this unit is controlled by a wet scrubber, opacity periodic monitoring will be satisfied through particulate emission periodic monitoring.	Rule 335-3-16-.05
5. Recordkeeping and Reporting Requirements	
1. A particulate matter emission test report shall be submitted to the Department at least once per year.	Rule 335-3-14-.02
2. Records of all three-hour block average liquor firing rates shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-14-.02
3. Records of all three-hour block average wet scrubber liquid supply flow rates, weak wash flow rate (if different) and fan rpm shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-14-.02
4. A sulfur dioxide emission test report shall be submitted to the Department at least once every five years.	Rule 335-3-14-.02
5. A total reduced sulfur emission test report shall be submitted to the Department at least once every five years.	Rule 335-3-14-.02
6. Pursuant to 40 CFR Part 63, Subpart MM the facility must develop a written Start-up, Shut-down, and Malfunction plan that contains the information required in §63.6 (e) and §63.866 (a).	RULE 335-3-11-.06 (1) AND (38)
7. Pursuant to 40 CFR Part 63, Subpart MM the facility must maintain records of any occurrence when corrective action is required (when a 3-hour average flow rate or rpm value is outside the established range of values), and when a violation is noted (when six or more 3-hour average flow rate or rpm values within any 6-month reporting period are outside the established range of values).	RULE 335-3-11-.06 (1) AND (38)
8. Pursuant to 40 CFR Part 63, Subpart MM the facility must maintain records of parametric monitoring data required under §63.864, including any period when the 3-hour average flow rate or rpm value were inconsistent with the levels	RULE 335-3-11-.06 (1) AND (38)

established during the initial performance test, with a brief explanation of the cause of the deviation, the time the deviation occurred, and the time corrective action was initiated and completed, and corrective action taken.

The facility must also maintain records and documentation of supporting calculations for compliance determinations made under §63.865 (a) through (d).

The facility must also maintain the records of the monitoring parameter ranges for the fan rpm's and scrubber flow rates.

9. Pursuant to 40 CFR Part 63, Subpart MM the facility must submit an Excess Emissions Report containing the information required in §63.867 (c), as well as the number and duration of three hour averages when the flow rate or rpm's were outside of the established range. RULE 335-3-11-.06 (1) AND (38)

The report is required to be submitted quarterly if there is an exceedance of parameters, or semi-annually if there is not.

No. 3 Lime Kiln
Informational Summary

Description: Lime Kiln
Recausticizing Area

Emission Unit No: 026

Installation Date: 1995 **Reconstruction / Modification date**: NA

Operating Capacity: 54,167 lb/hr reburned lime

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

40 CFR Part 60 Subpart BB
40 CFR Part 63 Subpart MM

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X026	No. 3 Lime Kiln	PM (gas)	≤ 0.035 gr/sdcf at 10% O_2 and/or ≤ 22 lbs/hr	Rule 335-3-10-.02 (28) and Rule 335-3-14-.04 (9)
X026	No. 3 Lime Kiln	PM (oil)	≤ 0.064 gr/sdcf at 10% O_2 and/or ≤ 42 lbs/hr.	Rule 335-3-10-.02 (28) and Rule 335-3-14-.04 (9)
X026	No. 3 Lime Kiln	TRS	≤ 8 ppmv at 10% O_2 and/or ≤ 3.1 lbs/hr.	Rule 335-3-10-.02 (28) and Rule 335-3-14-.04 (9)
X026	No. 3 Lime Kiln	SO_2	≤ 44 ppmv at 10% O_2 and/or ≤ 32.1 lbs/hr. This unit shall not fire oil with a sulfur content > 3.2%	Rule 335-3-14-.04 (9)
X026	No. 3 Lime Kiln	Opacity	≤ 20% with one 6-minute period up to 40% in any one hour period	Rule 335-3-4-.01
X026	No. 3 Lime Kiln	NO_x	≤ 175 ppmv at 10% O_2 and/or ≤ 91.8 lbs/hr	Rule 335-3-14-.04 (9)
X026	No. 3 Lime Kiln	CO	≤ 80 ppmv at 10% O_2 and/or ≤ 25.5.lbs/hr.	Rule 335-3-14-.04 (9)
X026	No. 3 Lime Kiln	VOC	≤ 0.69 lbs/ton of CaO and/or ≤ 18.8 lbs/hr (as carbon).	Rule 335-3-14-.04 (9)
X026	No. 3 Lime Kiln	SAM	≤ 1.2 lbs/hr.	Rule 335-3-14-.04 (9)
X026	No. 3 Lime Kiln	HAPS	PM as a surrogate ≤ 0.15 g/dscm (0.064 gr/dscf) 10% O_2.	Rule 335-3-11-.06 (1) and (38)

Permitted Fuels

Fuel	Max % Sulfur	Max % Ash
No. 2 Fuel Oil	0.5	N/A
Natural Gas	N/A	N/A
No. 5 Fuel Oil	3.2	N/A

No. 3 Lime Kiln Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to federal New Source Performance Standards 40 CFR 60 Subpart A and Subpart BB.	Rule 335-3-10-.02 (1) and (28)
3 This Source is subject to the requirements of ADEM Admin. Code 335-3-14-.04 (9)	Rule 335-3-14-.04 (9)
4. This source is subject to the requirements of ADEM Admin. Code 335-3-4-.01 for opacity.	Rule 335-3-4-.01
5. This source is subject to the requirements of National Emission Standards for Hazardous Pollutants General Provisions as listed in Subpart MM.	Rule 335-3-11-.06 (1) and (38)
2. Emission Standards	
1. Particulate matter emissions shall not exceed the more stringent of 0.035 gr/sdcf at 10 percent oxygen and 22 pounds per hour when firing natural gas.	Rule 335-3-10-.02 (28)
2. Particulate matter emissions shall not exceed the more stringent of 0.064 gr/sdcf at 10 percent oxygen and 42 pounds per hour when firing fuel oil.	Rule 335-3-10-.02 (28)
3. Total reduced sulfur shall not exceed the more stringent of 8 parts per million at 10 percent oxygen and 3.1 pounds per hour.	Rule 335-3-14-.04 (9)
4. Sulfur dioxide emissions shall not exceed 44 parts per million at 10 percent oxygen and 32.1 pounds per hour.	Rule 335-3-14-.04 (9)
5. The fuel oil fired in this unit shall not have a sulfur content of greater than 3.2%, as determined by the appropriate ASTM method.	Rule 335-3-14-.04 (9)
6. Opacity shall not exceed twenty percent as determined by six-minute average. During one six-minute period in any sixty-minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as forty percent.	Rule 335-3-4-.01
7. Nitrogen oxide emissions shall not exceed the more stringent of 175 ppmv at 10 percent oxygen and 91.8 pounds per hour.	Rule 335-3-14-.04 (9)
8. Carbon monoxide emissions shall not exceed the more stringent of 80 ppmv at 10 percent oxygen and 25.5 pounds per hour.	Rule 335-3-14-.04 (9)
9. Volatile organic compound emissions shall not exceed the more stringent of 0.69 pounds per ton of calcium oxide and 18.8 pounds per hour (as carbon).	Rule 335-3-14-.04 (9)
10. Sulfuric acid mists emissions shall not exceed 1.2 pounds per hour.	Rule 335-3-14-.04 (9)
11. In accordance with 40 CFR Part 63 Subpart MM, particulate matter emissions, as a surrogate for HAPS, shall not exceed 0.064 gr/dscf corrected to 10% oxygen.	Rule 335-3-11-.06 (1) and (38)
12. In accordance with 40 CFR Part 63, Subpart MM, this unit's opacity shall not exceed 20 percent for 6 percent or more of the operating time within any quarterly period	Rule 335-3-11-.06 (1) and (38)
3. Compliance and Performance Test Methods and Procedures	
1. Compliance with the particulate matter emission limit shall be determined in	Rule 335-3-14-.02

accordance with the 40 CFR Part 60 Method 5 or other method approved by the Department.	
2. Compliance with the sulfur dioxide limit shall be determined in accordance with the 40 CFR Part 60 Method 6, 6a or 6c or other method approved by the Department.	Rule 335-3-14-.02
3. The fuel oil sulfur content shall be measured in accordance with fuel oil sampling and analysis procedures in the appropriate ASTM method or other method approved by the Department.	Rule 335-3-14-.02
4. Compliance with the opacity limit shall be determined in accordance with the 40 CFR Part 60 Method 9 or other method approved by the Department.	Rule 335-3-4-.01
5. Compliance with the total reduced sulfur emission limit shall be determined in accordance with 40 CFR Part 60 Method 16, 16A or 16B or other method approved by the Department.	Rule 335-3-10-.02 (28)
6. Compliance with the nitrogen oxide limit shall be determined in accordance with 40 CFR Part 60 Method 7 and Method 7e or other method approved by the Department.	Rule 335-3-14-.02
7. Compliance with the carbon monoxide emission limit shall be determined in accordance with the 40 CFR Part 60 Method 10 or other method approved by the Department.	Rule 335-3-14-.02
8. Compliance with the volatile organic compound emission limit shall be determined in accordance with the 40 CFR Part 60 Method 18, 25, 25A or 25B or other method approved by the Department.	Rule 335-3-14-.02
9. Compliance with the sulfuric acid mists emission limit shall be determined in accordance with the 40 CFR Part 60 Method 8 or CMT13B or other method approved by the Department or other method approved by the Department.	Rule 335-3-14-.02
4. Emission Monitoring	
1. A particulate matter emission test shall be performed at least once per year. At least once every five years, the annual test shall be performed while firing the non-predominant fuel.	Rule 335-3-14-.02
2. For particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compound and sulfuric acid mists periodic monitoring, if any three-hour block average mud feed rate is greater than 110 percent of its average value set by the required complying periodic test or a complying test approved by the Department, the feed rate is to be lowered until compliance is successfully demonstrated at the higher rate.	Rule 335-3-14-.02
3. For particulate matter and opacity periodic monitoring, if the average of any ten consecutive six-minute opacity averages exceeds 20 percent the cause is to be investigated and appropriate corrective action is to be taken.	Rule 335-3-16-.05
4. A continuous emission monitoring system for the measurement of opacity shall be installed, operated and maintained.	Rule 335-3-14-.02
5. Pursuant to 40 CFR Part 63, Subpart MM, the Continuous Opacity Monitoring System shall meet the provisions of §63.6 (h), §63.8, and §63.864 (d)(1) through (d)(4).	RULE 335-3-11-.06 (1) AND (38)
6. A total reduced sulfur continuous emission monitor shall be installed, calibrated, maintained and operated in accordance with 40 CFR §60.284.	Rule 335-3-10-.02 (28)
7. A sulfur dioxide emission test shall be performed at least once every five years.	Rule 335-3-14-.02
8. A nitrogen oxide emission test shall be performed at least once every five	Rule 335-3-14-.02

years.

9. For sulfur dioxide periodic monitoring obtain fuel receipts from the fuel oil supplier that certify sulfur content in fuel for every load received by the mill. — Rule 335-3-14-.02

10. A carbon monoxide emission test shall be performed at least once every five years. — Rule 335-3-14-.02

11. A volatile organic compound emission test shall be performed at least once every five years. — Rule 335-3-14-.02

12. A sulfuric acid mists emission test shall be performed at least once every five years. — Rule 335-3-14-.02

5. Recordkeeping and Reporting Requirements

1. A particulate matter emission test report shall be submitted to the Department at least once per year. — Rule 335-3-14-.02

2. Records of all six-minute average opacities shall be made and maintained on file available for inspection for a period of five years. — Rule 335-3-14-.02

3. Records of all three-hour block average lime kiln production rate measured by lime mud flow rates and lime mud specific gravity shall be made and maintained on file available for inspection for at least five years. — Rule 335-3-14-.02

4. A report of excess opacity emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information: — Rule 335-3-16-.05

   a. The magnitude of emissions 20 percent and greater computed on a six-minute average (data recorded during periods of opacity monitor breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages).

   b. The date and time of commencement and completion of each time period of excess emissions.

   c. The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted.

   d. The date and time identifying each period during which the opacity monitor was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments.

   e. When no excess emissions have occurred and the opacity monitor was not inoperative or did not require repairs or adjustments, such information will be stated in the report.

5. A report of excess total reduced sulfur emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information: — Rule 335-3-10-.02 (28)

   a. The magnitude of excess emissions greater than 8 parts per million adjusted to 10 percent oxygen computed from twelve hour averages (data recorded during periods of total reduced sulfur emission monitoring system breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages).

   b. The date and time of commencement and completion of each time period of excess emissions.

   c. The nature and cause of the excess emissions (if known) and the

corrective action taken or preventative measures adopted. d. The date and time identifying each period during which the total reduced sulfur emission monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments. e. When no excess emissions have occurred and the total reduced sulfur emission monitoring system was not inoperative or did not require repairs or adjustments, such information will be stated in the report.	
6. A sulfur dioxide emission test report shall be submitted to the Department at least every five years.	Rule 335-3-14-.02
7. Fuel receipts from the fuel oil supplier that certify sulfur content in fuel for every load received by the mill shall be maintained on site available for inspection for at least five years.	Rule 335-3-14-.02
8. A nitrogen oxide emission test report shall be submitted to the Department at least every five years.	Rule 335-3-14-.02
9. A carbon monoxide emission test report shall be submitted to the Department at least every five years.	Rule 335-3-14-.02
10. A volatile organic compound emission test report shall be submitted to the Department at least every five years.	Rule 335-3-14-.02
11. A sulfuric acid mists emission test report shall be submitted to the Department at least every five years.	Rule 335-3-14-.02
12. Pursuant to 40 CFR Part 63, Subpart MM the facility must develop a written Start-up, Shut-down, and Malfunction plan that contains the information required in §63.6 (e) and §63.866 (a).	Rule 335-3-11-.06 (1) and (38)
13. Pursuant to 40 CFR Part 63, Subpart MM the facility must maintain records of any occurrence when corrective action is required when the average of ten consecutive 6-minute averages result in a measurement greater than 20 percent opacity, and when a violation is noted when opacity is greater than 20 percent for 6 percent or more of the operating time within any quarterly period.	Rule 335-3-11-.06 (1) and (38)
14. Pursuant to 40 CFR Part 63, Subpart MM the facility must maintain records of the CaO production rates in units of Mg/d or ton/d.	Rule 335-3-11-.06 (1) and (38)
15. The facility shall maintain records of all 6-minute periods when the opacity is greater than 20%.	Rule 335-3-16-.05
16. Pursuant to 40 CFR Part 63, Subpart MM the facility must submit an Excess Emissions Report containing the information required in §63.867 (c), as well as the number and duration of occurrences when the average of ten consecutive 6-minute averages result in a measurement greater than 20 percent opacity, and when the opacity is greater than 20 percent for 6 percent or more of the operating time within any quarterly period. The report is required to be submitted quarterly if the unit exceeds 20 percent for 6 percent or more of the operating time within any quarterly period, or semi-annually if the unit does not.	Rule 335-3-11-.06 (1) and (38)

No. 1 Power Boiler
Informational Summary

Description: No. 1 Power Boiler
Utilities

Emission Unit No: 006

Installation Date: 1957 **Reconstruction / Modification date**: NA

Operating Capacity: 282 MMbtu/hr

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
Z006	No. 1 Power Boiler	PM	1. Subject to ADEM Admin. Code R 335-3-4-.03 (0.12 lbs/MMBtu) when < 30% wood waste is fired. 2. When ≥ 30% of wood waste is fired, PM emissions are subject to ADEM Admin. Code R 335-3-4-.08. 3. ≤ 0.19 lb/Mlbs of steam assuming a steam enthalpy 1,097 BTU/lb.	Rule R 335-3-4-.03, Rule 335-3-4-.08 and Rule 335-3-14-.04
Z006	No. 1 Power Boiler	SO_2	1. SO_2 Category II Counties. No person shall cause or permit the operation of a fuel burning installation in a SO_2 Category II County in such a manner that sulfur oxides, measured as SO_2, are emitted in excess of 4.0 lbs/MMBtu of heat input. 2. ≤ 152.31 pounds per hour, measured by a continuous emission monitor.	Rule 335-3-5-.01 (b), (3) and (4) and Rule 335-3-14-.04
Z006	No. 1 Power Boiler	SO_2	The combined annual SO_2 emissions from this unit and from the No. 3 Power Boiler (Permit No. Z013) ≤ 320.7 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	Rule 335-3-14-.04
Z006	No. 1 Power Boiler	Opacity	≤ 20 % with one 6-minute period up to 40 % in any one hour period.	Rule 335-3-4-.01
Z006	No. 1 Power Boiler	NO_x	The combined annual NO_x emissions from this unit and from the No. 3 Power Boiler ≤ 317.2 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	Rule 335-3-14-.04

Chapter 5 – No. 1 Power Boiler

Emission Point #	Description	Pollutant	Emission limit	Regulation
Z006	No. 1 Power Boiler	CO	The combined annual carbon monoxide emissions from this unit and from the No. 3 Power Boiler $\leq$ 691.3 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	Rule 335-3-14-.04

Permitted Fuels

Fuel	Max % Sulfur	Max % Ash
Natural Gas	N/A	N/A
Coal	N/A	N/A
No. 2 Fuel Oil	0.5	N/A
Wood Waste	N/A	N/A

No. 1 Power Boiler Federally Enforceable Provisos	
1. Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to the requirements of ADEM Admin. Code 335-3-4-.08 (2) (a-d) for particulate matter from wood waste boilers.	Rule 335-3-4-.08 (2) (a-d)
3. This source is subject to the requirements of ADEM Admin. Code 335-3-4-.03 for particulate matter from Fuel Burning Equipment.	Rule 335-3-4-.03
4. This source is subject to the requirements of ADEM Admin. Code 335-3-14-.04 for particulate matter, sulfur dioxide, nitrogen oxide and carbon monoxide.	Rule 335-3-14-.04
5. This source is subject to the requirements of ADEM Admin. Code 335-3-5-.01 (b), (3) and (4) for sulfur dioxide from Fuel Combustion.	Rule 335-3-5-.01 (b), (3) and (4)
6. This source is subject to the requirements of ADEM Admin. Code 335-3-14-.04 (9) for particulate matter and sulfur dioxide.	Rule 335-3-14-.04 (9)
7. This source is subject to the requirements of ADEM Admin. Code 335-3-4-.01 Visible Emissions.	Rule 335-3-4-.01
2. Emission Standards	
1. Particulate matter emissions shall not exceed 0.12 pounds per million Btu when less than thirty percent wood waste is fired.	Rule R 335-3-4-.03
2. When thirty percent or more wood waste is fired, particulate matter emissions are subject to ADEM Admin. Code R 335-3-4-.08	Rule 335-3-14-.04 (9)
3. Particulate matter emissions shall not exceed 0.19 pounds per thousand pounds of steam (lb/Mlb steam) assuming a steam enthalpy 1,097 BTU/lb.	Rule 335-3-14-.04 (9)
4. Sulfur Dioxide Category II Counties. No person shall cause or permit the operation of a fuel burning installation in a Sulfur Dioxide Category II County in such a manner that sulfur oxides, measured as sulfur dioxide, are emitted in excess of 4.0 pounds per million BTU heat input.	Rule 335-3-4-.08 and Rule 335-3-14-.04
5. Sulfur dioxide emissions shall not exceed 152.31 pounds per hour, measured by a continuous emission monitor.	Rule 335-3-14-.04 (9)
6. The combined annual sulfur dioxide emissions from this unit and from the No. 3 Power Boiler shall not exceed 320.7 tons per 12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	Rule 335-3-14-.04 (9)
7. The combined annual nitrogen oxide emissions from this unit and from the No. 3 Power Boiler shall not exceed 317.2 tons per 12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	Rule 335-3-14-.04 (9)
8. The total steam produced from this unit shall not exceed 512,227,000 pounds per rolling 12 month period.	Rule 335-3-14-.04 (9)
9. Visible emissions shall not be greater than 20% opacity, as determined by six (6) minute averages, except during one six (6) minute period in any sixty (60)	Rule 335-3-4-.01

minute period, an opacity not greater than that designated as forty percent (40%) may be discharged to the atmosphere.	
10. The combined annual carbon monoxide emissions from this unit and from the No. 3 Power Boiler shall not exceed 691.3 tons per 12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	Rule 335-3-14-.04
3. Compliance and Performance Test Methods and Procedures	
1. Compliance with the particulate matter emission limit shall be determined in accordance with the 40 CFR Part 60 Method 5 **or other method approved by the Department.**	Rule 335-3-14-.02
2. Compliance with the sulfur dioxide emission pounds per million BTU limit shall be determined by 40 CFR Part 60 Method 6, 6a or 6c **or other method approved by the Department.**	Rule 335-3-14-.02
3. Compliance with the combined annual sulfur dioxide emission limit shall be determined by the continuous emission monitoring system **or other method approved by the Department.**	Rule 335-3-14-.02
4. Compliance with the combined annual nitrogen oxide emission limit shall be determined by the continuous emission monitoring system **or other method approved by the Department.**	Rule 335-3-14-.02
5. Compliance with the Opacity limit shall be determined by 40 CFR Chapter 1 Appendix A Reference Method 9 **or other method approved by the Department.**	Rule 335-3-14-.04
6. Compliance with the combined annual carbon monoxide emission shall be determined by the continuous emission monitoring system **or other method approved by the Department.**	Rule 335-3-14-.02
4. Emission Monitoring	
1. A particulate matter emission test shall be performed at least once per year while firing the main fuels.	Rule 335-3-14-.02
2. For particulate matter periodic monitoring, if any three-hour block average steam production rate is greater than 110 percent of its average value set by the required complying periodic test or a complying test approved by the Department, the feed rate is to be lowered until compliance is successfully demonstrated at the higher rate.	Rule 335-3-16-.05
3. For particulate matter periodic monitoring, if any three-hour block average wet scrubber liquid supply flow rate (combined flow to the quench, venture inlet and venture throat) is less than 90 percent of its respective average value recorded at the time of a required periodic test that showed compliance or a test approved by the Department that showed compliance, the cause is to be investigated and appropriate corrective action is to be taken within twenty-four hours.	Rule 335-3-14-.02
4. A Continuous Emissions Monitoring System for measuring carbon monoxide, nitrogen oxide, and sulfur dioxide emissions shall be installed, calibrated, operated and maintained.	Rule 335-3-14-.02
5. For sulfur dioxide periodic monitoring, if any three-hour rolling average continuous emission monitoring system value exceeds 152.31 pounds per hour, the cause is to be investigated and appropriate corrective action is to be taken within twenty-four hours.	Rule 335-3-14-.02
6. The carbon monoxide, sulfur dioxide, and nitrogen oxide continuous emission	Rule 335-3-14-.04 (9)

monitors shall meet the requirements of 40 CFR Part 60, Appendix F.	
7. Since this unit is controlled by a wet scrubber, opacity periodic monitoring will be satisfied through particulate emission periodic monitoring.	Rule 335-3-16-.05
8. Records of the 12-month rolling total carbon monoxide, sulfur dioxide, and nitrogen oxide emission rates from the No. 1 Power Boiler and No. 3 Power Boiler shall be made.	Rule 335-3-14-.02
5. Recordkeeping and Reporting Requirements	
1. A particulate matter emission test report shall be submitted to the Department at least once per year.	Rule 335-3-14-.02
2. The three-hour block average steam production rate shall be recorded continuously.	Rule 335-3-14-.02
3. The wet scrubber wet scrubber liquid supply flow rate shall be recorded continuously.	Rule 335-3-14-.02
4. The carbon monoxide, nitrogen oxide, and the sulfur dioxide monitors shall be subject to the reporting and recordkeeping requirements of 40 CFR Part 60, Appendix F.	Rule 335-3-14-.02
5. Records of the monthly and 12-month rolling total carbon monoxide, sulfur dioxide, and nitrogen oxide emission rates from the No. 1 Power Boiler and No. 3 Power Boiler shall be maintained on file available for inspection for at least five years.	Rule 335-3-14-.02

No. 2 Power Boiler
Informational Summary

Description: No. 2 Power Boiler
Utilities

Emission Unit No: 010

Installation Date: 1965 **Reconstruction / Modification date**: NA

Operating Capacity: 189 MMbtu/hr

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
Z007	No. 2 Power Boiler	PM	1. Subject to ADEM Admin. Code R 335-3-4-.03 $\leq$ 0.12 lbs/MMBtu. 2. $\leq$ 2.36 lbs/hr.	Rule 335-3-4-.03 and Rule 335-3-14-.04
Z007	No. 2 Power Boiler	SO_2	The fuel oil sulfur content $\leq$ 0.5 %.	Rule 335-3-14-.04
Z007	No. 2 Power Boiler	Opacity	$\leq$ 20 % with one 6-minute period up to 40 % in any one hour period	Rule 335-3-4-.01

Permitted Fuels

Fuel	Max % Sulfur	Max % Ash
Natural Gas	N/A	N/A
No. 2 Fuel Oil	0.5	N/A

No. 2 Power Boiler Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to the requirements of ADEM Admin. Code 335-3-4-.03 for particulate matter from Fuel Burning Equipment.	Rule 335-3-4-.03
3. This source is subject to the requirements of ADEM Admin. Code 335-3-14-.04 (9) for particulate matter and sulfur dioxide.	Rule 335-3-14-.04 (9)
4. This source is subject to the requirements of ADEM Admin. Code 335-3-4-.01 Visible Emissions.	Rule 335-3-4-.01
2. Emission Standards	
1. Particulate matter emissions are limited to 0.12 pounds per million Btu not to exceed 2.36 pounds per hour.	Rule R 335-3-4-.03
2. The sulfur content of the fuel oil fired shall not exceed 0.5 percent.	Rule 335-3-14-.04
3. Visible emissions shall not be greater than 20% opacity, as determined by six (6) minute averages, except during one six (6) minute period in any sixty (60) minute period, an opacity not greater than that designated as forty percent (40%) may be discharged to the atmosphere.	Rule 335-3-4-.01
4. This unit shall not fire more than 6,354,140 gallons of oil in any 12-month period.	Rule 335-3-14
3. Compliance and Performance Test Methods and Procedures	
1. Compliance with the particulate matter emission limit shall be determined in accordance with the 40 CFR Part 60 Method 5 or other method approved by the Department.	Rule 335-3-14-.02
2. Compliance with the fuel oil sulfur content limit shall be determined by monitoring and record keeping or other method approved by the Department.	Rule 335-3-14-.02
3. Compliance with the Opacity limit shall be determined by 40 CFR Chapter 1 Appendix A Reference Method 9 or other method approved by the Department.	Rule 335-3-14-.04
4. Emission Monitoring	
1. A particulate matter emission test shall be performed at least once every five years.	Rule 335-3-14-.02
2. For particulate matter and opacity periodic monitoring, the steam production rate is to be checked at least once per shift. If it is greater than 110 percent of its average value set by the required complying periodic test or a complying test approved by the Department, the feed rate is to be lowered until compliance is successfully demonstrated at the higher rate.	Rule 335-3-16-.05
3. For sulfur dioxide periodic monitoring obtain fuel receipts from the fuel oil supplier that certify sulfur content in fuel for every load received by the mill.	Rule 335-3-14-.02
5. Recordkeeping and Reporting Requirements	
1. A particulate matter emission test report shall be submitted to the Department at least once every five years.	Rule 335-3-14-.02

2. At least once per shift the steam production rate shall be recorded.	Rule 335-3-14-.02
3. Fuel receipts from the fuel oil supplier that certify sulfur content in fuel for every load received by the mill shall be maintained on site available for inspection for at least five years.	Rule 335-3-14-.02
4. Records of the amount of fuel oil fired shall be maintained on site and be available for inspection for at least five years.	Rule 335-3-14-.02

No. 3 Power Boiler
Informational Summary

Description: No. 3 Power Boiler
Utilities

Emission Unit No: 013

Installation Date: 1957 **Reconstruction / Modification date**: 2003

Operating Capacity: 363.9 MMbtu/hr

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 60 Subpart D

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
Z013	No. 3 Power Boiler	PM	$\leq$ 0.073 lbs/MMBtu heat input.	Rule 335-3-10-.02 (1) and (2) and Rule 335-3-14-.04
Z013	No. 3 Power Boiler	SO_2	1. $\leq$ 1.0 lbs/MMBtus heat input. 2. The SO_2 emission rate $\leq$ 0.8 lbs/MMBtu heat input when fuel oil is the fuel fired. 3. When different fossil fuels are burned simultaneously in any combination, the applicable SO_2 standard shall be determined by proration using the following formula: $PS_{SO2} = [y(0.8)+z(1.0)]/(y+z)$ where: PS_{SO2} is the prorated standard for sulfur dioxide when burning different fossil fuels simultaneously in pounds per million Btu heat input derived from all fossil fuels fired, Y is the percentage of total heat input derived from liquid fossil fuel, and z is the percentage of total heat input derived from solid fossil fuel.	Rule 335-3-10-.02 (1) and (2) and Rule 335-3-14-.04
Z013	No. 3 Power Boiler	SO_2	$\leq$ 349.8 lbs/hr.	Rule 335-3-14-.04
Z013	No. 3 Power Boiler	SO_2	The combined annual SO_2 emissions from this unit and from the No. 1 Power Boiler $\leq$ 320.7 tons/12 month rolling period. Using data from the	

			CEMS, the facility will calculate emissions on a tons-per-month basis.	
Z013	No. 3 Power Boiler	NO_x	$\leq$ 0.7 lbs/MMBtu heat input	Rule 335-3-10-.02 (1) and (2) and Rule 335-3-14-.04
Z013	No. 3 Power Boiler	NO_x	The combined annual NO_x emissions from this unit and from the No. 1 Power Boiler shall not exceed 317.2 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	
Z013	No. 3 Power Boiler	CO	The combined annual CO emissions from this unit and from the No. 1 Power Boiler $\leq$ 691.3 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	Rule 335-3-14-.04
Z013	No. 3 Power Boiler	Opacity	Opacity $\leq$ 20 % except for one 6-minute period per hour of not more than 27 %.	Rule 335-3-10-.02 (1) and (2) and Rule 335-3-14-.04

Permitted Fuels

Fuel	Max % Sulfur	Max % Ash
No. 2 Fuel Oil	0.5	N/A
Coal	N/A	N/A
Wood Waste	N/A	N/A

No. 3 Power Boiler Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to the requirements of ADEM Admin. Code Rule 335-3-10-.02 (1) and (2) and ADEM Admin. Code Rule 335-3-14-.04.	Rule 335-3-10-.02 (1) and (2) and Rule 335-3-14-.04
2. Emission Standards	
1. The particulate matter emission rate shall not exceed 0.073 pounds per million Btu heat input.	Rule 335-3-10-.02 (1) and (2) and Rule 335-3-14-.04
2. The sulfur dioxide emission rate shall not exceed 1.0 pounds per million Btus heat input.	Rule 335-3-10-.02 (1) and (2) and Rule 335-3-14-.04
3. The sulfur dioxide emission rate shall not exceed 0.8 pounds per million Btu heat input when fuel oil is the fuel fired.	Rule 335-3-10-.02 (1) and (2) and Rule 335-3-14-.04
4. When different fossil fuels are burned simultaneously in any combination, the applicable sulfur dioxide standard shall be determined by proration using the following formula: PSSO2 = [y(0.8)+z(1.0)]/(y+z) where: PSSO2 is the prorated standard for sulfur dioxide when burning different fossil fuels simultaneously in pounds per million Btu heat input derived from all fossil fuels fired, Y is the percentage of total heat input derived from liquid fossil fuel, and z is the percentage of total heat input derived from solid fossil fuel.	Rule 335-3-14-.04
5. Sulfur dioxide emissions shall not exceed 349.8 pounds per hour.	Rule 335-3-14-.04
6. The combined annual sulfur dioxide emissions from this unit and from the No. 1 Power Boiler (Permit No. Z006) shall not exceed 320.7 tons per 12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis.	Rule 335-3-14-.04
7. Nitrogen oxide emissions shall not exceed 0.7 pounds per million Btu heat input	Rule 335-3-14-.04
8. The combined annual nitrogen oxide emissions from this unit and from the No. 1 Power Boiler (Permit No. Z006) shall not exceed 317.2 tons per 12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	Rule 335-3-14-.04
9. The combined annual carbon monoxide emissions from this unit and from the No. 1 Power Boiler shall not exceed 691.3 tons per 12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.	Rule 335-3-14-.04
10. Opacity shall not be greater than 20 percent except for one six-minute period per hour of not more than 27 percent.	Rule 335-3-10-.02 (1) and (2) and Rule 335-3-14-.04

3. Compliance and Performance Test Methods and Procedures	
1. Compliance with the particulate matter emission limit shall be determined in accordance with the 40 CFR Part 60 Method 5 **or other method approved by the Department.**	Rule 335-3-14-.02
2. Compliance with the sulfur dioxide pounds per million Btu emission limit shall be determined by 40 CFR Part 60 Appendix A Reference Method 6, Method 6c, or the continuous emission monitoring system **or other method approved by the Department.**	Rule 335-3-14-.02
3. Compliance with the sulfur dioxide pounds per hour emission limit shall be determined by 40 CFR Part 60 Appendix A Reference Method 6, 6a **or 6c or other method approved by the Department.**	Rule 335-3-14-.02
4. Compliance with the nitrogen oxide emission limit shall be determined in accordance with the 40 CFR Part 60 Method 7, 7e or the continuous emission monitoring system **or other method approved by the Department.**	Rule 335-3-14-.02
5. Compliance with the combined annual carbon monoxide, sulfur dioxide, and nitrogen oxide emission limits shall be determined by the continuous emission monitoring system **or other method approved by the Department.**	Rule 335-3-14-.02
6. Compliance with the Opacity limit shall be determined by 40 CFR Chapter 1 Appendix A Reference Method 9 **or other method approved by the Department.**	Rule 335-3-4-.01
4. Emission Monitoring	
1. A particulate matter emission test shall be performed at least once per year.	Rule 335-3-14-.02
2. For particulate matter, if any three-hour block average steam production rate is greater than 110 percent of its average value set by the required complying periodic test or a complying test approved by the Department, the feed rate is to be lowered until compliance is successfully demonstrated at the higher rate.	Rule 335-3-16-.05
3. For particulate matter periodic monitoring, if any three-hour block average wet scrubber liquid supply flow rate (combined flow to the quench, venture inlet and venture throat) is less than 90 percent of its respective average value recorded at the time of a required periodic test that showed compliance or a test approved by the Department that showed compliance, the cause is to be investigated and appropriate corrective action is to be taken within twenty-four hours.	Rule 335-3-14-.02
4. Continuous monitoring systems to record carbon monoxide, sulfur dioxide, and nitrogen oxide emissions shall be installed, calibrated, operated, and maintained.	Rule 335-3-16-.05
5. Since this unit is controlled by a wet scrubber, opacity periodic monitoring will be satisfied through particulate emission periodic monitoring.	Rule 335-3-16-.05
5. Recordkeeping and Reporting Requirements	
1. A particulate matter emission test report shall be submitted to the Department at least once per year.	Rule 335-3-1-.04
2. Records of all three-hour block average steaming rates shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-14-.02
3. A written report of excess carbon monoxide, sulfur dioxide and nitrogen oxide emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information:	Rule 335-3-16-.05
a. The magnitude of excess emissions computed on a three-hour rolling	

average (data recorded during periods of monitor breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages). b. The date and time of commencement and completion of each time period of excess emissions. c. The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted. d. The date and time identifying each period during which the monitor was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments. e. When no excess emissions have occurred and the monitor was not inoperative or did not require repairs or adjustments, such information will be stated in the report.	
4. The carbon monoxide, nitrogen oxide, and the sulfur dioxide monitors shall be subject to the reporting and recordkeeping requirements of 40 CFR Part 60, Appendix F.	Rule 335-3-14-.02
5. Records of all three-hour block average wet scrubber liquid supply flow rates shall be maintained on file available for inspection for at least five years.	Rule 335-3-14-.02
6. Records of the monthly and 12-month rolling total carbon monoxide, sulfur dioxide, and nitrogen oxide emission rates from the No. 1 Power Boiler and the No. 3 Power Boiler shall be made and maintained in a form suitable for inspection for at least 5 years.	Rule 335-3-14-.02

K-1 Digester System
Informational Summary

Description: K-1 Digester System

Emission Unit No: 005

Installation Date: 1957 **Reconstruction / Modification date**: N/A

Operating Capacity: 38,750 Air-dry lbs/hr produced

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 63 Subpart S

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
Z005	K-1 Digester System (State Only)	TRS	Incineration	Rule 335-3-5-.04 (1) (b) (5)
Z005	K-1 Digester System	HAPS	Incineration	Rule 335-3-11-.06 (1) and (18)

Chapter 8 – K-1 Digester System

K-1 Digester System Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This unit is subject to federal National Emission Standards for Hazardous Pollutants General Provisions as provided for in Table 1 of Subpart S and Subpart S (See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements).	Rule 335-3-11-.06 (1) and (18)
2. Emission Standards	
1. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
3. Compliance and Performance Test Methods and Procedures	
1. This source is subject to no additional requirements other than those listed in the general provisos.	
4. Emission Monitoring	
1. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
5. Recordkeeping and Reporting Requirements	
1. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)

K-1 Digester System State Only Enforceable Provisos	Regulations
1. Applicability (State Only)	
1. This unit is subject to the requirements of ADEM Admin. Code 335-3-5-.04 (5) total reduced sulfur from kraft pulp mill digesters.	Rule 335-3-5-.04(5)
2. Emission Standards (State Only)	
1. All gases discharged that contain total reduced sulfur in excess of 5 parts per million shall be incinerated subjecting the gases to a minimum temperature of 1200 degrees Fahrenheit for at least 0.5 seconds. If an owner or operator demonstrates to the satisfaction of the Director that emissions in excess of the levels otherwise authorized in this regulation occur as a result of properly performed startups, shutdowns or unavoidable malfunctions these emissions will not constitute a violation.	RULE 335-3-5-.04 (5)
3. Compliance and Performance Test Methods and Procedures (State Only)	
1. This source is subject to no additional requirements other than those listed in the general provisos.	
4. Emission Monitoring (State Only)	
1. For total reduced sulfur periodic monitoring at least once per day mill personnel shall determine if the gases are being incinerated as required and if gases are not being incinerated, investigate and take corrective action within twenty-four hours.	Rule 335-3-14-.02
5. Recordkeeping and Reporting Requirements (State Only)	

1. Once per day records of whether or not total reduced sulfur gases are being incinerated shall be made and maintained on file available for inspection for a period of five years.	Rule 335-3-14-.02

K-2 Digester System
Informational Summary

Description: K-2 Digester System

Emission Unit No: 024

Installation Date: 1992 **Reconstruction / Modification date**: N/A

Operating Capacity: 72,083 air-dry lbs/hr

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 63 Subpart S

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X024	K-2 Digester System	TRS	Incineration	Rule 335-3-10-.02 (28)
X024	K-2 Digester System	HAPS	Incineration	Rule 335-3-11-.06 (1) and (18)

K-2 Digester System Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to federal New Source Performance Standards Subpart BB.	Rule 335-3-10-.02 (28)
3. This source is subject to federal National Emission Standards for Hazardous Pollutants General Provisions as provided for in Table 1 of Subpart S and Subpart S (See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements).	Rule 335-3-11-.06 (1) and (18)
2. Emission Standards	
1. All gases discharged that contain total reduced sulfur in excess of 5 parts per million shall be incinerated subjecting the gases to a minimum temperature of 1200 degrees Fahrenheit for at least 0.5 seconds.	Rule 335-3-10-.02 (28)
2. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
3. Compliance and Performance Test Methods and Procedures	
1. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
4. Emission Monitoring	
1. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
2. For total reduced sulfur periodic monitoring at least once per day mill personnel shall determine if the gases are being incinerated as required and if gases are not being incinerated, investigate and take corrective action within twenty-four hours.	Rule 335-3-14-.02
5. Recordkeeping and Reporting Requirements	
1. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
2. Once per day records of whether or not total reduced sulfur gases are being incinerated shall be made and maintained on file available for inspection for a period of five years.	Rule 335-3-14-.02

No. 3 Multiple Effect Evaporator System
Informational Summary

Description: No. 3 Multiple Effect Evaporator
Utilities Area

Emission Unit No 025

Installation Date: 1992 **Reconstruction / Modification date:** 1997

Operating Capacity: 175,000 lb BLS/hr
4.2 MMlb/day at 14% solids feed concentration & 75% solids

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 60 Subpart BB
40 CFR Part 63 Subpart S

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X025	Multiple Effect Evaporator System	TRS	Incineration	Rule 335-3-10-.02 (28)
X025	Multiple Effect Evaporator System	HAPS	Incineration	Rule 335-3-11-.06 (1) and (18)

Multiple Effect Evaporator System Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to federal New Source Performance Standards Subpart BB.	Rule 335-3-10-.02 (28)
3. This source is subject to federal National Emission Standards for Hazardous Pollutants General Provisions as provided for in Table 1 of Subpart S and Subpart S (See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements).	Rule 335-3-11-.06 (1) and (18)
2. Emission Standards	
1. All gases discharged that contain total reduced sulfur in excess of 5 parts per million shall be incinerated subjecting the gases to a minimum temperature of 1200 degrees Fahrenheit for at least 0.5 seconds.	Rule 335-3-10-.02 (28)
2. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
3. Compliance and Performance Test Methods and Procedures	
1. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
4. Emission Monitoring	
1. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
2. For total reduced sulfur periodic monitoring at least once per day mill personnel shall determine if the gases are being incinerated as required and if gases are not being incinerated, investigate and take corrective action within twenty-four hours.	Rule 335-3-14-.02
5. Recordkeeping and Reporting Requirements	
1. See "Provisos for Pulping System Processes", "Process Condensates" and "Enclosures and Closed Vent Systems" for additional requirements.	Rule 335-3-11-.06 (1) and (18)
2. Once per day records of whether or not total reduced sulfur gases are being incinerated shall be made and maintained on file available for inspection for a period of five years.	Rule 335-3-14-.02

Brown Stock Washer System
Informational Summary

Description: "A" Line Brown Stock Washers
Pulp Mill

Emission Unit No: 017

Installation Date: 1957 **Reconstruction / Modification date:**

Operating Capacity: 72,083 lb air-dry pulp/hr

Operating Schedule: 8760 hours/year.

Description: "B" Line Brown Stock Washers
Pulp Mill

Emission Unit No: 017

Installation Date: 1956 **Reconstruction / Modification date:**

Operating Capacity: 38,750 lb air-dry pulp/hr

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 63 Subpart S (Both Line "A" and "B")

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X017	"A" Line Brown Stock Washers	HAPs	Incineration	Rule 335-3-11-.06 (1) and (18)
X017	"B" Line Brown Stock Washers	HAPs	Incineration	Rule 335-3-11-.06 (1) and (18)

Brown Stock Washers Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to the requirements of ADEM Admin. Code 335-3-14-.04 (9) for total reduced sulfur.	Rule 335-3-14-.04 (9)
3. This source is subject to federal National Emission Standards for Hazardous Pollutants General Provisions as provided for in Table 1 of Subpart S and Subpart S (See Provisos for "Pulping System Processes" and "Enclosures and Closed Vent Systems" for additional requirements).	Rule 335-3-11-.06 (1) and (18)
2. Emission Standards	
1. See Provisos for "Pulping System Processes" and "Enclosures and Closed Vent Systems" for additional requirements.	
3. Compliance and Performance Test Methods and Procedures	
1. See provisos for "Enclosures and Closed Vent Systems" for details.	
4. Emission Monitoring	
1. See Provisos for "Enclosures and Closed Vent Systems" for details.	
5. Recordkeeping and Reporting Requirements	
1. See Provisos for "Enclosures and Closed Vent Systems" for details.	

50 Ton Per Day Chlorine Dioxide Generator System Informational Summary

Description: Chlorine Dioxide Plant
Pulp Mill

Emission Unit No: 020

Installation Date: 1991 **Reconstruction / Modification date**: NA

Operating Capacity: 50 tons ClO_2/day

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X020	50 Ton Per Day Chlorine Dioxide Generator System (State only)	Chlorine	Shall not exceed 1.43 lb/hr.	Rule 335-3-14
X020	50 Ton Per Day Chlorine Dioxide Generator System (State only)	Chlorine dioxide	Shall not exceed 3.04 lb/hr.	Rule 335-3-14

50 Ton Per Day Chlorine Dioxide Generator System State Only Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. Emission Standards	
1. Chlorine emissions shall not exceed 1.43 pounds per hour.	Rule 335-3-14
2. Chlorine dioxide emissions shall not exceed 3.04 pounds per hour.	Rule 335-3-14
3. Compliance and Performance Test Methods and Procedures	
1. Chlorine and chlorine dioxide emissions shall be measured in accordance with the impinger capture technique described in the National Council of the Paper Industry for Air and Stream Improvement, Inc. Technical Bulletin No. 520, April, 1987 or other method approved by the Department.	Rule 335-3-14-.02
4. Emission Monitoring	
1. A chlorine emission test shall be performed at least once every five years.	Rule 335-3-14-.02
2. A chlorine dioxide emission test shall be performed at least once every five years.	Rule 335-3-14-.02
3. At least once daily record chilled water flow rate and liquid temperature to the scrubber. If the chilled water flow rate is less than 90 % of or the chilled water temperature is more than 5 degrees Fahrenheit higher than the average respective value set by a required periodic test that showed compliance or a test approved by the Department that showed compliance, the cause is to be investigated and appropriate corrective action is to be taken within twenty-four hours.	Rule 335-3-16-.05 (3)
5. Recordkeeping and Reporting Requirements	
1. Maintain records of daily chilled water flow rate and liquid temperature to the scrubber, available for inspection for at least 5 years.	Rule 335-3-14-.02
2. A chlorine and chlorine dioxide emission test report shall be submitted to the Department at least once every five years.	Rule 335-3-14-.02

Chapter 13 – Bleaching System

Bleaching System
Pulp Mill

Description: Bleaching System
Pulp Mill

Emission Unit No: 018 and 019

Installation Date: No. 1: 1957 **Reconstruction / Modification date:**
No. 2: 1992

Operating Capacity: No. 1 – 58,333 lbs bleached pulp/hr
No. 2 – 88,583 lbs bleached pulp/hr

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 63 Subpart S

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
X018 and X019	Bleaching System	HAP	Enclosed and vented to a closed-vent system (per 63.450) and routed to a control device.	Rule 335-3-11-.06 (1) and (18)
X018 and X019	Bleaching System	HAP	Emit 10 parts per million or less by volume of total chlorinated HAP (or as chlorine).	Rule 335-3-11-.06 (1) and (18)
X018	No. 1 Bleach Line (State only)	Chlorine dioxide	Shall not exceed a total of 2.38 pounds per hour.	Rule 335-3-14
X018	No. 1 Bleach Line (State only)	Chlorine	Shall not exceed a total of 8.12 pounds per hour.	Rule 335-3-14
X019	No. 2 Bleach Line (State only)	Chlorine dioxide	Shall not exceed 4.0 pounds per hour.	Rule 335-3-14
X019	No. 2 Bleach Line (State only)	Chlorine	Shall not exceed 6.0 pounds per hour.	Rule 335-3-14

Chapter 13 – Bleaching System

Bleaching System Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to the requirements of 40 CFR Part 63 General Provisions as provided for in Table 1 of Subpart S and Subpart S.	Rule 335-3-11-.06(18)
2. Emission Standards	
1. The equipment at each bleaching stage, of the bleaching system, where chlorinated compounds are introduced shall be enclosed and vented into a closed-vent system and routed to a control device that meets the requirement specified in bullet 3 of this section.	Rule 335-3-11-.06(18)
2. The enclosures and closed-vent system shall meet the requirements specified in the Enclosures and Closed-Vent Systems Emission Standards Proviso 1(b)-(d).	Rule 335-3-11-.06(18)
3. The control device used to reduce chlorinated HAP emissions (not including chloroform) from the equipment in this section shall: (1) Reduce the total chlorinated HAP mass in the vent stream entering the control device by 99 percent or more by weight; (2) Achieve a treatment device outlet concentration of 10 parts per million or less by volume of total chlorinated HAP (or as chlorine); or (3) Achieve a treatment device outlet mass emission rate of 0.001 kg of total chlorinated HAP mass per megagram (0.002 pounds per ton) of ODP.	Rule 335-3-11-.06(18)
4. To reduce chloroform emissions the permittee shall comply with the effluent limitation guidelines specified in 40 CFR 430 (63.445(d)(1), or use no hypochlorite or chlorine for bleaching in the bleaching system.	Rule 335-3-11-.06(18)
3. Compliance and Performance Test Methods and Procedures	
1. For the enclosures and closed-vent system see the Compliance and Performance Test Methods and Procedures provisos for Enclosures and Closed-Vent Systems.	Rule 335-3-11-.06(18)
2. Compliance with the total chlorinated HAP emission limit shall be determined in accordance with the test method described in 40 CFR §63.457.	Rule 335-3-11-.06(18)
4. Emission Monitoring	
1. For the enclosures and closed-vent system see the Emission Monitoring provisos for Enclosures and Closed-Vent Systems.	Rule 335-3-11-.06(18)
2. A continuous monitoring system (CMS, as defined in 40 CFR 63 Subpart A General Provisions § 63.2) shall be installed, calibrated, certified, operated, and maintained according to the manufacturer's specifications. The CMS shall include a continuous recorder.	Rule 335-3-11-.06(18)

3. The CMS shall be operated to measure the following parameters for each gas scrubber used to comply with the bleaching system requirements of 40 CFR 63 Subpart S § 63.445(c). (a) The pH or the oxidation/reduction potential of the gas scrubber effluent; (b) The gas scrubber liquid influent flow rate; and (c) The bleach plant exhaust gas fan rpm (See March 20, 2001 EPA Region IV letter granting approval of alternative monitoring.)	Rule 335-3-11-.06(18)
4. The bleaching system scrubber shall be operated in accordance with the parameter value ranges established in accordance with 40 CFR 63.453(n)	Rule 335-3-11-.06(18)
5. Recordkeeping and Reporting Requirements	
1. See the Recordkeeping and Reporting Requirements section of the Enclosures and Closed-Vent Systems provisos.	40 CFR Part 63 Section 63.454 and 63.455
2. The owner or operator of this source shall comply with the recordkeeping and reporting requirements of 40CFR Part 63 § 63.10, as shown in Table 1 of Subpart S.	Rule 335-3-11-.01

Bleaching System State Only Provisos	Regulations
1. Applicability (State Only)	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. Emission Standards (State Only)	
1. No. 1 Bleach Line's chlorine dioxide emissions shall not exceed 2.38 pounds per hour.	Rule 335-3-14
2. No. 1 Bleach Line's chlorine emissions shall exceed 8.12 pounds per hour.	Rule 335-3-14
3. No. 2 Bleach Line's chlorine dioxide emissions shall not exceed 4.0 pounds per hour.	Rule 335-3-14
4. No. 2 Bleach Line's chlorine emissions shall not exceed 6.0 pounds per hour.	Rule 335-3-14
3. Compliance and Performance Test Methods and Procedures (State Only)	
1. Chlorine dioxide and chlorine emissions shall be measured in accordance with the impinger capture technique described in the National Council of the Paper Industry for Air and Stream Improvement, Inc. Technical Bulletin No. 520, April, 1987 or other method approved by the Department.	Rule 335-3-14-.02
4. Emission Monitoring (State Only)	
1. A chlorine emission test shall be performed at least once every five years.	Rule 335-3-14-.02
2. A chlorine dioxide emission test shall be performed at least once every five years.	Rule 335-3-14-.02
5. Recordkeeping and Reporting Requirements (State Only)	
1. The chlorine dioxide and chlorine emission test reports shall be submitted to the Department at least once every five years.	Rule 335-3-14-.02

Pulping System Processes
Informational Summary

Description: Pulping System Processes

Emission Unit No: 443

Installation Date: NA **Reconstruction / Modification date**: NA

Operating Capacity: NA

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 63 Subpart S

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
S443	Pulping System Processes	HAPs	Equipment systems shall be enclosed and vented into a closed-vent system and routed to a control device that meets the following requirements: (1) Reduce total HAP emissions by 98 percent or more by weight; or (2) Reduce the total HAP concentration at the outlet of the thermal oxidizer to 20 parts per million or less by volume, corrected to 10 percent oxygen on a dry basis; or (3) Reduce total HAP emissions using a thermal oxidizer designed and operated at a minimum temperature of 871 °C (1600 °F) and a minimum residence time of 0.75 seconds; or (4) Reduce total HAP emissions using one of the following: (i) A boiler, lime kiln, or recovery furnace by introducing the HAP emission stream with the primary fuel or into the flame zone; or (ii) A boiler or recovery furnace with a heat input capacity greater than or equal to 44 megawatts (150 million British thermal units per hour) by introducing the HAP emission stream with the combustion air.	Rule 335-3-11-.06(18)
S443	Pulping System Processes	HAPs	The enclosures and closed-vent system shall meet the requirements specified in the Enclosures and Closed-Vent Systems Emission Standards Proviso 1(b)-(d).	Rule 335-3-11-.06(18)
S443	Pulping System Processes HVLC	HAPs	To be in Compliance with 40 CFR 63 Subpart S Section 63.443	Rule 335-3-11-.06(18)

Chapter 14 – Pulping System Processes

Pulping System Processes Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to federal National Emission Standards for Hazardous Pollutants General Provisions as provided for in Table 1 of Subpart S and Subpart S.	Rule 335-3-11-.06(1) and .06(18)
2. Emission Standards	
1. For the pulping system processes, per the requirements of 40 CFR Part 63 Subpart S, Low Volume High Concentration Gases shall be controlled by incineration.	Rule 335-3-11-.01
2. Per the requirements of 40 CFR Part 63 Subpart S, Chemi-washer emissions shall be incinerated.	Rule 335-3-11-.01
3. Periods of excess emissions reported under 40 CFR Part 63 § 63.455 shall not be a violation of 40 CFR Part 63 § 63.443 (c) and (d) provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed the following levels: (1) One percent for control devices used to reduce the total HAP emissions from the LVHC system; and (2) Four percent for control devices used to reduce the total HAP emissions from the HVLC system; and (3) Four percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.	Rule 335-3-11-.01
4. Equipment systems listed in provisos 1 and 2 of this section shall be enclosed and vented into a closed-vent system and routed to a control device that meets the requirements specified in the following bullet. The enclosures and closed-vent system shall meet the requirements specified in the Enclosures and Closed-Vent Systems Emission Standards Proviso 1(b)-(d).	40 CFR Part 63 Section 63.443
5. The control device used to reduce total HAP emissions from each equipment system listed in provisos 1 and 2 of this section shall either or both: (1) Reduce total HAP emissions by 98 percent or more by weight; or (2) Reduce the total HAP concentration at the outlet of the thermal oxidizer to 20 parts per million or less by volume, corrected to 10 percent oxygen on a dry basis; or (3) Reduce total HAP emissions using a thermal oxidizer designed and operated at a minimum temperature of 871 °C (1600 °F) and a minimum residence time of 0.75 seconds; or (4) Reduce total HAP emissions using one of the following: (i) A boiler, lime kiln, or recovery furnace by introducing the HAP emission stream with the primary fuel or into the flame zone; or (ii) A boiler or recovery furnace with a heat input capacity greater than or equal to 44 megawatts (150 million British thermal units per hour) by introducing the HAP emission stream with the combustion air.	40 CFR Part 63 Section 63.443

3. Compliance and Performance Test Methods and Procedures	
1. See Compliance and Performance Test Methods and Procedures provisos for "Enclosures and Closed Vent Systems" for details.	40 CFR Part 63 Section 63.457
4. Emission Monitoring	
1. For the closed-vent system see the Emission Monitoring provisos for "Enclosures and Closed-Vent Systems".	Rule 335-3-11-.06(18)
5. Recordkeeping and Reporting Requirements	
1. For the HVLC sources, per the requirements of 40 CFR PART 63 Subpart S, the permittee shall meet the Recordkeeping and Reporting Requirements section of the Enclosures and Closed-Vent Systems provisos.	Rule 335-3-11-.01
2. For the pulping system processes and each applicable enclosure opening, closed-vent system, and closed collection system, per the requirements of 40 CFR §63.443, the permittee shall meet the Recordkeeping and Reporting Requirements section of the Enclosures and Closed-Vent Systems provisos.	Rule 335-3-11-.01

Process Condensates
Informational Summary

Description: Process Condensates

Emission Unit No: 446

Installation Date: NA **Reconstruction / Modification date**: NA

Operating Capacity: NA

Operating Schedule: 8760 hours/year.

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 63 Subpart S

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
S446	Process Condensates (1) Each digester system; (2) Each turpentine recovery system; (3) Each evaporator system condensate from: (i) The vapors from each stage where weak liquor is introduced (feed stages); and (ii) Each evaporator vacuum system for each stage where weak liquor is introduced (feed stages); (4) Each HVLC collection system; and (5) Each LVHC collection system.	HAPs	Collect the pulping process condensates from equipment systems in this section that in total contain a total HAP mass of 5.5 kilograms or more of total HAP per megagram (11.1 pounds per ton) of ODP for mills that perform bleaching.	Rule 335-3-11-.06(18)
S446	Process Condensates	HAPs	Treat the pulping process condensates to remove 5.1 kilograms or more of total HAP per megagram (10.2 pounds per ton) of ODP.	Rule 335-3-11-.06(18)
S446	Process Condensates	HAPs	The pulping process condensates from the equipment systems in this section shall be conveyed in a closed collection system that is designed and operated to meet the requirements specified in 40 CFR 63.446	Rule 335-3-11-.06(18)
S446	Process Condensates	HAPs	The enclosures and closed-vent system shall meet the requirements specified in 40 CFR 63.450	Rule 335-3-11-.06(18)

Process Condensates Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to federal National Emission Standards for Hazardous Pollutants General Provisions as provided for in Table 1 of Subpart S and Subpart S.	Rule 335-3-11-.06(1) and .06(18)
2. Emission Standards	
1. For Process Condensates, per the requirements of 40 CFR Part 63 Subpart S, pulping process condensates shall be collected and treated.	Rule 335-3-11-.01
2. Collect the combined pulping process condensates that in total contain a total HAP mass of 5.5 kilograms or more of total HAP per megagram (11.1 pounds per ton) of ODP.	Rule 335-3-11-.01
3. The pulping process condensates from the equipment systems in this section shall be conveyed in a closed collection system that is designed and operated to meet the requirements specified in bullets (a) and (b) of this section.	Rule 335-3-11-.01
(a) Each closed collection system shall meet the individual drain system requirements specified in 40 CFR Part 63 § 63.960, 63.961, and 63.962 of subpart RR of this part, except for closed vent systems and control devices shall be designed and operated in accordance with 40 CFR Part 63 §§ 63.443(d) and 63.450, instead of in accordance with 40 CFR Part 63 § 63.693 as specified in 40 CFR Part 63 § 63.962 (a)(3)(ii), (b)(3)(ii)(A), and (b)(3)(ii)(B)(5)(iii); and	
(b) If a condensate tank is used in the closed collection system, the tank shall meet the following requirements: (i) The fixed roof and all openings (e.g., access hatches, sampling ports, gauge wells) shall be designed and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million above background, and vented into a closed-vent system that meets the requirements in § 63.450 and routed to a control device that meets the requirements in § 63.443(d); and (ii) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that the tank contains pulping process condensates or any HAP removed from a pulping process condensate stream except when it is necessary to use the opening for sampling, removal, or for equipment inspection, maintenance, or repair.	
4. Each HAP removed from a pulping process condensate stream during treatment and handling under this section shall be discharged below the liquid surface of a biological treatment system and treated to meet the requirements specified in paragraph (e)(3), (4), or (5) of 40 CFR Part 63 § 63.446 and total HAP shall be measured as specified in 40 CFR Part 63 § 63.457(g).	Rule 335-3-11-.01
5. At mills that perform bleaching, treat the pulping process condensates to remove 5.1 kilograms or more of total HAP per megagram (10.2 pounds per ton) of ODP, or achieve a total HAP concentration of 330 parts per million or less by weight at the outlet of the control device.	Rule 335-3-11-.01
3. Compliance and Performance Test Methods and Procedures	
1. An initial performance test is required by one of the procedures to determine total HAP or methanol in liquid samples described in 40 CFR Part 63 §63.457.	40 CFR Part 63 Section 63.457

2. For the closed-vent system see the Compliance and Performance Test Methods and Procedures provisos for "Enclosures and Closed-Vent Systems". | Rule 335-3-11-.06(18)

4. Emission Monitoring

1. A continuous monitoring system (CMS, as defined in 40 CFR Part 63 Subpart A General Provisions § 63.2) shall be installed, calibrated, certified, operated, and maintained according to the manufacturer's specifications. The CMS shall include a continuous recorder. | Rule 335-3-11-.01

2. A CMS shall be operated to measure the appropriate parameters determined according to the procedures specified in paragraph 4 of this section to comply with the condensate applicability requirements specified in 40 CFR § 63.446(c). | Rule 335-3-11-.01

3. Each owner or operator using an open biological treatment system to comply with 40 CFR Part 63 § 63.446(e)(2) shall perform the daily monitoring procedures specified in either bullet 3. (1) or (2) of this section and shall conduct a performance test each quarter using the procedures specified in paragraph 3 (3) of this section. | Rule 335-3-11-.01

(1) Comply with the monitoring and sampling requirements specified in paragraphs (1)(i) and (ii) of this section.

(i) On a daily basis, monitor the following parameters for each open biological treatment unit:

(A) Composite daily sample of outlet soluble BOD5 concentration to monitor for maximum daily and maximum monthly average;

(B) ASB Aeration Rate (as an alternative to mixed liquor volatile suspended solids);

(C) Horsepower of aerator unit(s);

(D) Inlet liquid flow; and

(E) Liquid temperature.

(ii) If the Inlet and Outlet Concentration Measurement Procedure (Procedure 3) in appendix C of 40 CFR Part 63 is used to determine the fraction of HAP compounds degraded in the biological treatment system as specified in 40 CFR Part 63 § 63.457(l), conduct the sampling and archival requirements specified in paragraphs 3 (1)(ii)(A) and (B) of this section.

(A) Obtain daily inlet and outlet liquid grab samples from each biological treatment unit to have HAP data available to perform quarterly performance tests specified in paragraph 3 (3) of this section and the compliance tests specified in paragraph 6 of this section.

(B) Store the samples as specified in 40 CFR Part 63 § 63.457(n) until after the results of the soluble BOD5 test required in paragraph 4 (1)(i)(A) of this section are obtained. The storage requirement is needed since the soluble BOD5 test requires 5 days or more to obtain results. If the results of the soluble BOD5 test are outside of the range established during the initial performance test, then the archive sample shall be used to perform the mass removal or percent reduction determinations.

(2) The daily ASB aeration rate was established as an alternative to the Mixed Liquor Volatile Suspended Solids monitoring requirements of paragraph 3

(1) of this section.

(3) Conduct a performance test as specified in 40 CFR Part 63 § 63.457(l) within 45 days after the beginning of each quarter and meet the applicable emission limit in 40 CFR Part 63 § 63.446(e)(2).

4. To establish or reestablish, the value for each operating parameter required to be monitored by this section or to establish appropriate parameters for paragraph 3 (2) of this section, each owner or operator shall use the following procedures: — Rule 335-3-11-.01

(a) During the initial performance test required in 40 CFR Part 63 § 63.457(a) or any subsequent performance test, continuously record the operating parameter;

(b) Determinations shall be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations;

(c) The owner or operator shall provide for the Administrator's approval the rationale for selecting the monitoring parameters necessary to comply with paragraph 2 of this section; and

(d) Provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency, and averaging time. Include all data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the applicable emission standard.

5. Each owner or operator of a control device subject to the monitoring provisions of this section shall operate the control device in a manner consistent with the minimum or maximum (as appropriate) operating parameter value or procedure required to be monitored under paragraphs 1 through 4 of this section and established under this subpart. Except as provided in paragraph 6 of this section, 40 CFR Part 63 § 63.443(e), or § 63.446(g), operation of the control device below minimum operating parameter values or above maximum operating parameter values established under this subpart or failure to perform procedures required by this subpart shall constitute a violation of the applicable emission standard of this subpart and be reported as a period of excess emissions. — Rule 335-3-11-.01

6. The procedures of this paragraph apply to each owner or operator of an open biological treatment system complying with paragraph 3 of this section whenever a monitoring parameter excursion occurs, and the owner or operator chooses to conduct a performance test to demonstrate compliance with the applicable emission limit. A monitoring parameter excursion occurs whenever the monitoring parameters specified in paragraphs (1)(i)(A) through (C) of this section or any of the monitoring parameters specified in paragraph 1 of this section are below minimum operating parameter values or above maximum operating parameter values established in paragraph 4 of this section. — Rule 335-3-11-.01

(1) As soon as practical after the beginning of the monitoring parameter excursion, the following requirements shall be met:

(i) Before the steps in paragraph 6 (1)(ii) or (iii) of this section are performed, all sampling and measurements necessary to meet the requirements in paragraph 6 (2) of this section shall be conducted.

(ii) Steps shall be taken to repair or adjust the operation of the process to end the parameter excursion period.

(iii) Steps shall be taken to minimize total HAP emissions to the atmosphere during the parameter excursion period.

(2) A parameter excursion is not a violation of the applicable emission standard if the results of the performance test conducted using the procedures in this paragraph demonstrate compliance with the applicable emission limit in 40 CFR Part 63 § 63.446(e)(2).

(i) Conduct a performance test as specified in 40 CFR Part 63 § 63.457 using the monitoring data specified in paragraph 3 (1) or (2) of this section that coincides with the time of the parameter excursion. No maintenance or changes shall be made to the open biological treatment system after the beginning of a parameter excursion that would influence the results of the performance test.

(ii) If the results of the performance test specified in paragraph 6 (2)(i) of this section demonstrate compliance with the applicable emission limit in 40 CFR Part 63 § 63.446(e)(2), then the parameter excursion is not a violation of the applicable emission limit.

(iii) If the results of the performance test specified in paragraph 6 (2)(i) of this section do not demonstrate compliance with the applicable emission limit in 40 CFR Part 63 § 63.446(e)(2) because the total HAP mass entering the open biological treatment system is below the level needed to demonstrate compliance with the applicable emission limit in 40 CFR Part 63 § 63.446(e)(2), then the owner or operator shall perform the following comparisons:

(A) If the value of fbio (MeOH) determined during the performance test specified in paragraph 6 (2)(i) of this section is within the range of values established during the initial and subsequent performance tests approved by the Administrator, then the parameter excursion is not a violation of the applicable standard.

(B) If the value of fbio (MeOH) determined during the performance test specified in paragraph 6 (2)(i) of this section is not within the range of values established during the initial and subsequent performance tests approved by the Administrator, then the parameter excursion is a violation of the applicable standard.

(iv) The results of the performance test specified in paragraph 6 (2)(i) of this section shall be recorded as specified in 40 CFR Part 63 § 63.454(f).

(3) If an owner or operator determines that performing the required procedures under paragraph 6 (2) of this section for a nonthoroughly mixed open biological system would expose a worker to dangerous, hazardous, or otherwise unsafe conditions, all of the following procedures shall be performed:

(i) Calculate the mass removal or percent reduction value using the procedures specified in 40 CFR Part 63 § 63.457(l) except the value for fbio (MeOH) shall be determined using the procedures in appendix E to this part.

(ii) Repeat the procedures in paragraph 6 (3)(i) of this section for every day until the unsafe conditions have passed.

(iii) A parameter excursion is a violation of the standard if the percent reduction or mass removal determined in paragraph 6 (3)(i) of this section is less than the percent reduction or mass removal standards specified in 40 CFR Part 63 § 63.446(e)(2), as appropriate, unless the value of fbio (MeOH) determined using the procedures in appendix E of

this section, as specified in paragraph 6 (3)(i), is within the range of fbio (MeOH) values established during the initial and subsequent performance tests previously approved by the Administrator.

(iv) The determination that there is a condition that exposes a worker to dangerous, hazardous, or otherwise unsafe conditions shall be documented according to requirements in 40 CFR Part 63 § 63.454(e) and reporting in 40 CFR Part 63 § 63.455(f).

(v) The requirements of paragraphs 6 (1) and (2) of this section shall be performed and met as soon as practical but no later than 24 hours after the conditions have passed that exposed a worker to dangerous, hazardous, or otherwise unsafe conditions.

5. Recordkeeping and Reporting Requirements

1. For the pulping process condensates from the equipment systems of this section per the requirements of 40 CFR §63.446, the permittee shall meet the Recordkeeping and Reporting Requirements section of the "Enclosures and Closed-Vent Systems" provisos.	Rule 335-3-11-.01
2. For each applicable enclosure opening, closed-vent system, and closed collection system, the owner or operator shall meet the Recordkeeping and Reporting Requirements section of the "Enclosures and Closed-Vent Systems provisos".	Rule 335-3-11-.01
3. The owner or operator shall record and report the CMS parameters specified in 40 CFR Part 63 § 63.453 and meet the requirements specified in the Recordkeeping and Reporting Requirements section of the "Enclosures and Closed-Vent Systems" Proviso Number 1 for any new affected process equipment or pulping process condensate stream that becomes subject to the standards in this subpart due to a process change or modification.	Rule 335-3-11-.01
4. The owner or operator of an open nonthoroughly mixed biological treatment system complying with 40 CFR Part 63 § 63.453(p)(3) instead of 40 CFR Part 63 § 63.453(p)(2) shall prepare a written record identifying the specific conditions that would expose a worker to dangerous, hazardous, or otherwise unsafe conditions. The record must include a written explanation of the specific reason(s) why a worker would not be able to perform the sampling and test procedures specified in 40 CFR Part 63 § 63.457(l).	Rule 335-3-11-.01
5. The owner or operator of an open biological treatment system complying with 40 CFR Part 63 § 63.453(p) shall prepare a written record specifying the results of the performance test specified in 40 CFR Part 63 § 63.453(p)(2).	Rule 335-3-11-.01
6. If the owner or operator uses the results of the performance test required in 40 CFR Part 63 § 63.453(p)(2) to revise the approved values or ranges of the monitoring parameters specified in 40 CFR Part 63 § 63.453(j)(1) or (2), the owner or operator shall submit an initial notification of the subsequent performance test to the Administrator as soon as practicable, but no later than 15 days, before the performance test required in 40 CFR Part 63 § 63.453(p)(2) is scheduled to be conducted. The owner or operator shall notify the Administrator as soon as practicable, but no later than 24 hours, before the performance test is scheduled to be conducted to confirm the exact date and time of the performance test.	Rule 335-3-11-.01
7. To comply with the open biological treatment system monitoring provisions of 40 CFR Part 63 § 63.453(p)(3), the owner or operator shall notify the Administrator as soon as practicable of the onset of the dangerous, hazardous, or otherwise unsafe conditions that did not allow a compliance determination to be conducted using the sampling and test procedures in 40 CFR Part 63 §	Rule 335-3-11-.01

63.457(l). The notification shall occur no later than 24 hours after the onset of the dangerous, hazardous, or otherwise unsafe conditions and shall include the specific reason(s) that the sampling and test procedures in 40 CFR Part 63 § 63.457(l) could not be performed.

Enclosures and Closed-Vent Systems
Informational Summary

Description: Enclosures and Closed-Vent Systems

Emission Unit No: 450

Installation Date: NA **Reconstruction / Modification date**: NA

Operating Capacity: NA

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 63 Subpart S

Emission limitations:

Emission Point #	Description	Pollutant	Emission limit	Regulation
S450	Enclosures and Closed-Vent Systems (1) Pulping System and (2) Bleaching System	HAPs	Leak Detection and Repair Program Each enclosure shall maintain negative pressure at each enclosure or hood opening. Each enclosure or hood opening closed during the initial performance test shall be maintained in the same closed and sealed position at all times except for sampling, inspection, maintenance, or repairs. Each component of the closed-vent that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 ppm by volume above	Rule 335-3-11-.06(18)

Enclosures and Closed-Vent Systems Federally Enforceable Provisos	Regulations
1. Applicability	
1. This source is subject to the applicable requirements of Rule 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to federal National Emission Standards for Hazardous Pollutants General Provisions as provided for in Table 1 of Subpart S and Subpart S.	Rule 335-3-11-.06(1) and .06(18)
2. Emission Standards	
1. (a) For the pulping system and pulp bleaching system per the requirements of 40 CFR Part 63 Subpart S each enclosure and closed vent system shall meet the requirements specified in bullets 1. (b) through (d) of this section.	Rule 335-3-11-.01
(b) Each enclosure shall maintain negative pressure at each enclosure or hood opening as demonstrated by the procedures specified in 40 CFR § 63.457(e). Each enclosure or hood opening closed during the initial performance test specified in 40 CFR § 63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance, or repairs.	Rule 335-3-11-.01
(c) Each component of the closed-vent system used to comply with 40 CFR §§ 63.443(c), 63.444(b), and 63.445(b) that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million by volume above background, as measured by the procedures specified in 40 CFR § 63.457(d).	Rule 335-3-11-.01
(d) Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in 40 CFR §§ 63.443, 63.444, or 63.445 shall comply with either of the following requirements:	Rule 335-3-11-.01
(1) On each bypass line, the owner or operator shall install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line at least once every 15 minutes. The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line; or	
(2) For bypass line valves that are not computer controlled, the owner or operator shall maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.	
3. Compliance and Performance Test Methods and Procedures	
1. *Detectable leak procedures.* To measure detectable leaks for closed-vent systems as specified in 40 CFR § 63.450 or for pulping process wastewater collection systems as specified in 40 CFR Part 63 § 63.446(d)(2)(i), the owner or operator shall comply with the following:	Rule 335-3-11-.01
(1) Method 21, of 40 CFR Part 60, appendix A; and	
(2) The instrument specified in Method 21 shall be calibrated before use according to the procedures specified in Method 21 on each day that leak checks are	

performed. The following calibration gases shall be used:

(i) Zero air (less than 10 parts per million by volume of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 parts per million by volume methane or n-hexane.

2. *Negative pressure procedures.* To demonstrate negative pressure at process equipment enclosure openings as specified in 40 CFR § 63.450(b), the owner or operator shall use one of the following procedures: Rule 335-3-11-.01

(1) An anemometer to demonstrate flow into the enclosure opening;

(2) Measure the static pressure across the opening;

(3) Smoke tubes to demonstrate flow into the enclosure opening; or

(4) Any other industrial ventilation test method demonstrated to the Administrator's satisfaction.

4. Emission Monitoring

1. (a) Each enclosure and closed-vent system used to comply with 40 CFR § 63.450(a) shall comply with the requirements specified in bullets (a)(1) through (a)(6) of this section. Rule 335-3-11-.01

(1) For each enclosure opening, a visual inspection of the closure mechanism specified in 40 CFR § 63.450(b) shall be performed at least once a month with at least 14 days elapsed between inspections to ensure the opening is maintained in the closed position and sealed.

(2) Each closed-vent system required by 40 CFR § 63.450(a) shall be visually inspected at least once a month with at least 14 days elapsed between inspections and at other times as requested by the Administrator. The visual inspection shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.

(3) For positive pressure closed-vent systems or portions of closed-vent systems, demonstrate no detectable leaks as specified in 40 CFR § 63.450(c) measured initially and annually by the procedures in 40 CFR § 63.457(d).

(4) Demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in § 63.457(e).

(5) The valve or closure mechanism specified in 40 CFR § 63.450(d)(2) shall be inspected at least once a month with at least 14 days elapsed between inspections to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line.

(6) If an inspection required by bullets (k)(1) through (k)(5) of this section identifies visible defects in ductwork, piping, enclosures or connections to covers required by 40 CFR § 63.450, or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable.

(i) A first effort to repair or correct the closed-vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified.

(ii) The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if the owner or operator determines that the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be

completed by the end of the next process unit shutdown.

2. Each pulping process condensate closed collection system used to comply with 40 CFR § 63.446(d) shall comply with the requirements specified in bullets 2(a) through 2(c) of this section. — Rule 335-3-11-.01

(a) Each pulping process condensate closed collection system shall be visually inspected at least once a month with at least 14 days elapsed between inspections and shall comply with the inspection and monitoring requirements specified in § 63.964 of subpart RR of this part, except:

(i) Owners or operators shall comply with the recordkeeping requirements of § 63.454 instead of the requirements specified in 40 CFR § 63.964(a)(1)(vi) and (b)(3) of subpart RR of this part.

(ii) Owners or operators shall comply with the inspection and monitoring requirements for closed-vent systems and control devices specified in bullets (a) and (k) of 40 CFR §63.453 instead of the requirements specified in 40 CFR § 63.964(a)(2) of subpart RR of this part.

(b) Each condensate tank used in the closed collection system shall be operated with no detectable leaks as specified in 40 CFR § 63.446(d)(2)(i) measured initially and annually by the procedures specified in 40 CFR § 63.457(d).

(c) If an inspection required by this section identifies visible defects in the closed collection system, or if an instrument reading of 500 parts per million or greater above background is measured, then corrective actions specified in 40 CFR § 63.964(b) of subpart RR of this part shall be taken.

5. Recordkeeping and Reporting Requirements

1. (a) The owner or operator of each affected source subject to the requirements of Subpart S shall comply with the recordkeeping requirements of 40 CFR § 63.10 of Subpart A, as shown in table 1 of Subpart S and the requirements specified in bullets 1. (b) and (c) of this section for the monitoring parameters specified in 40 CFR § 63.453. — Rule 335-3-11-.01

(b) For each applicable enclosure opening, closed-vent system, and closed collection system, the owner or operator shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the following information for each inspection: — Rule 335-3-11-.01

(1) Date of inspection;

(2) The equipment type and identification;

(3) Results of negative pressure tests for enclosures;

(4) Results of leak detection tests;

(5) The nature of the defect or leak and the method of detection (i.e., visual inspection or instrument detection);

(6) The date the defect or leak was detected and the date of each attempt to repair the defect or leak;

(7) Repair methods applied in each attempt to repair the defect or leak;

(8) The reason for the delay if the defect or leak is not repaired within 15 days after discovery;

(9) The expected date of successful repair of the defect or leak if the repair is

not completed within 15 days;	
(10) The date of successful repair of the defect or leak;	
(11) The position and duration of opening of bypass line valves and the condition of any valve seals; and	
(12) The duration of the use of bypass valves on computer controlled valves.	
(c) The owner or operator shall record the CMS parameters specified in 40 CFR § 63.453 and meet the requirements specified in bullet 1.(a) of this section for any new affected process equipment or pulping process condensate stream that becomes subject to the standards in this subpart due to a process change or modification.	Rule 335-3-11-.01

Description: **Sources Subject Only to the General Provisos**

Emission Unit No: NA

Installation Date: NA **Reconstruction / Modification date**: NA

Operating Capacity: NA

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

Description
• Pulp Dryer
• No. 1 Board Mill
• Brownstock (BSW) High Density Pulp Storage
• Weak Black Liquor Storage
• White Liquor Clarifier
• Lime Slakers and Caustizers
• Green Liquor Clarifier
• Saltcake Mix Tank
• Coal Storage Pile (Fugitive)
• Landfill (Fugitive)
• Wastewater Treatment Lagoon (Fugitive)

Statement of Basis
Rock-Tenn Mill Company, LLC
105-0001

Rock-Tenn has applied for a renewal of its Major Source Operating Permit 105-0001. This proposed Title V Major Source Operating Permit is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

I. Background:

Rock-Tenn is an integrated bleached Kraft pulp and paperboard mill and a market bleached Kraft pulp mill located in Demopolis, Alabama. The Demopolis, AL site is located in Marengo County, which is classified as a Class II county for particulates. The mill produces bleached pulp, which is sold as market pulp or is made into either bond or offset grades of paper. The facility is a major source with respect to Title V, PSD, and the MACT/NESHAP standards. Rock-Tenn is a major source operating facility for the following pollutants: PM, PM_{10}, $PM_{2.5}$, SO_2, NOx, CO, VOCs, Total HAP's, Acetaldehyde, Chloroform, Chlorine, Chloromethane, Formaldehyde, HCl, Hydrogen Sulfide, and Methanol.

II. Pulp Mill:

The pulp mill operation at the Demopolis Mill is comprised of several areas. The major processes include the digesters, pulp washing and screening, and the bleach plants. The ancillary processes include the turpentine recovery, noncondensable gas (NCG) collection, and the chlorine dioxide generation facility.
The pulp mill is divided into a softwood and hardwood line. The softwood line consists of the No. 1 Kamjr digester, the "B" line pulp washing system, and the No. 1 Bleach Plant. The hardwood line includes the No. 2 Kamyr digester, the "A" line pulp washing system, and the No. 2 Bleach Plant.

A. Brown Stock Washing System

The function of the pulp washing systems in to wash out the residual cooling liquor from the pulp. The brown stock washing system is the area in the pulp mill in which wood chips are converted into unbleached pulp. This includes deknotting, pulp washing, screening, decker dewatering, and storage.

The Demopolis Mill operates separate softwood and hardwood pulp washing lines. Both pulp washing systems are similar in operation. From the digester blow tank, the pulp enters the first of three stages of washing. The washing system uses a countercurrent wash sequence. After the third stage of washing, the pulp is placed in a storage chest prior to being processed through a knotter and then screened. Following the screening section, the pulp is dewatered on a decker and then sent directly to the bleach plant.

1. Control Equipment:

Emissions from the pulp washing stages, decker stages, filtrate chests, and foam tower are collected in a High Volume Low Concentration (HVLC) non-condensable gas system and and vented to a non-condensable gas (NCG) collection system. 40 CFR Part 63 Subpart S requires that these gases be controlled. These gases are then routed to either the No. 1 or No. 3 Power Boiler for incineration, which is one of the listed control options in 40 CFR Part 63 Subpart S.

a. Emission Limits and Proposed Periodic Monitoring

The brown stock system is subject to 40 CFR Part 63 Subpart S (MACT I). All HVLC gases discharged from the Brown Stock Washers are required to be incinerated in the No. 1 or No. 3 Power boiler as require by Subpart S. Subpart S also requires annual testing and monthly inspections of the HVLC NCG system

B. Digesters

The pulp mill currently has two single-vessel Kamyr digesters. Both are operated similarly. Wood chips from the storage silos are first fed to a digester chip feeder. Rock-Tenn uses the Kraft process for the conversion of wood chips into pulp, which involves the use of sodium hydroxide and sodium sulfide mixture (referred to as white liquor) and pressure to "cook" the wood chips which dissolves the lignin in the wood. At the end of the cook, the pulped wood chips are released to a blow tank.

1. Control Equipment:

Emissions from the two digesters are collected in the blow tanks. The digesters and blow tanks form low volume high concentration gases (LVHC) which are also required to be collected and treated by 40 CFR Part 63 Subpart S. The LVHC system is a separate dedicated line that collects the gases released from a blow tank since there are pressure surges that occurs when the digester blows at the completion of cooks. Rock-Tenn has also elected to control these emissions by routing these gases to the No. 1 and No. 3 Power Boiler for incineration

a. Emission Limits and Proposed Periodic Monitoring

The No. 1 Kamyr digester is subject to 40 CFR Part 63 Subpart S (MACT I). The No. 2 Kamyr digester is subject to 40 CFR Part 60 Subpart BB and 40 CFR Part 63 Subpart S (MACT I). All gases discharged from No. 2 Kamyr Digester that contain total reduced sulfur in excess of 5 parts per million corrected to 10% oxygen are required to be incinerated in the lime kiln or combination fuel boiler as require by Subpart BB. All HVLC and LVHC gases are to be collected and incinerated as required by Subpart S. Subpart S also requires annual testing and monthly inspections of the HVLC and LVHC NCG system.

C. No. 1 and No. 2 Bleach Plant

The bleaching is carried out in a continuous, step-wise sequence which is divided into two parts, delignification and brightening. In the first stage CLO_2 is added which makes the lignins soluble in alkaline solutions, then in the second stage caustic is added to neutralize the mixture and aid the extraction and stabilization of the pulp. The pulp is then thoroughly washed to remove the remaining lignin and other contaminates. In the third and fourth stages CLO_2 is added to whiten the pulp to customer specifications. The No. 1 Bleach Plant uses a D_{100}-E_{OP}-D-E_P-D bleaching sequence. The No. 2 Bleach Plant uses a D_{100}-E_{OP}-D bleaching sequence. The Bleach Plants are subject to 40 CFR Part 63 Subpart S (MACT I).

1. Control Equipment:

The bleach plants are equipped with two separate scrubbing systems to remove residual Cl & ClO_2 fumes from vent exhausts. The No. 1 Bleach Plant Scrubber removes residual Cl & ClO_2 fumes from the chlorinated tower, washer, and filtrate tank, the first and second chlorine dioxide bleach towers, washers, and filtrate tanks, and the first and second caustic extraction washers and filtrate tanks. A weak caustic is used as the scrubbing medium in the packed tower.

The No. 2 Bleach Plant Scrubber uses white liquor to absorb residual Cl and ClO_2 vapors from vent gases collected from ten sources in the No. 2 Bleach Plant. The following sources vent to the No. 2 Bleach Plant Scrubber: two vents from the D_{100} bleach tower, the D_{100} stage washer hood, the D_{100} stage seal tank, the E_{OP} washer, the E_{OP} stage seal tank, two vents from the ClO_2 bleach tower, the D-1 stage washer hood, and the D-1 stage seal tank.

a. Emission Limits and Proposed Periodic Monitoring

The equipment at each bleaching stage of the bleaching system where chlorinated compounds are introduced is required be enclosed and vented into a closed-vent system and routed to a control device which meets the requirements as specified in 40 CFR Part 63 Subpart S. To reduce chloroform emissions, Rock-Tenn has elected to comply with the guidelines as specified in 63.445(d)(1) by not using hypochlorite or chlorine for bleaching in the bleaching system.
The bleach plants are not subject to any federal standards, but they have state ClO_2 and Cl emission limits. The No. 1 Bleach Plant's ClO_2 and Cl emission limits are 2.38 lb/hr and 8.12 lb/hr, respectfully. The No. 2 Bleach Plant's ClO_2 and Cl emission limits are 4.00 lb/hr and 6.00 lb/hr, respectfully. The Mill is required to perform emissions testing at least once per 5 year permitting period.

D. Chlorine Dioxide Plant

Since chlorine dioxide is an extremely unstable compound at room temperature and pressure and can not be easily stored, Rock-Tenn produces it on-site. ClO_2 is generated as a gas from the reaction of sodium chlorate with sulfuric acid which uses methanol as a catalyst. The gas is absorbed in chilled water. The methanol is received by truck and diluted to a 20% solution and stored in a 14,300 gallon tank. The methanol storage tank is no longer subject to 40 CFR Part 60 Subpart Kb.

The ClO_2 generating system consists of a generator/crystallizer, reboiler, indirect heat exchanger, generator dump tank, chlorine dioxide absorption tower, scrubber tower, salt cake filter, and vacuum system. The sodium chlorate, sodium

chloride, sulfuric acid, and methanol are combined in the generator/crystallizer which produces gaseous chlorine dioxide, a precipitate of salt cake and a trace amount of chlorine gas. The vacuum system pulls the vapors from the generator and into the collection system.

1. Control Equipment:

Gases from the generator are cooled in a heat exchanger. The condensate and gases flow to an absorption tower where chilled water is used to absorb the ClO_2. The gases that are not absorbed pass through to a barometric condenser, and into the tail gas scrubber. The scrubber also collects the vent gases from the chlorine dioxide storage tanks. The scrubber uses chilled water as its scrubbing medium. The following units vent to the tail gas scrubber: the ClO_2 absorption tower, the salt cakes filter, and the north and south ClO_2 solution storage tanks.

a. Emission Limits and Proposed Periodic Monitoring

The ClO_2 generator is not subject to any federal standards, but there are State air-toxic ClO_2 and Cl emission limits of 3.04 lb/hr and 1.43 lb/hr respectfully. The daily monitoring for this unit is to measure and record the scrubber liquid temperature and scrubber liquid flow rate and perform emissions testing at least once per 5 year permitting period.

III. Recausticizing Area

The Recausticizing area and No. 3 Lime Kiln are integral to the recovery of pulping chemicals and the conversion of these chemicals back to active ingredients. This is part of the recovery loop which also includes the multiple-effect evaporator system and recovery furnace. Recausticizing is the conversion of sodium carbonate in green liquor to sodium hydroxide in white liquor by a reaction with lime. The green liquor from the smelt dissolving tank is combined with reburned lime from the lime kiln. Then it is transferred to an agitated tank known as a slaker. From the slaker the mixture flows to a series of three causticizers which convert the sodium carbonate to sodium hydroxide and calcium oxide (lime) to calcium carbonate (lime mud). The slurry is transferred from the last causticizer to a clarifier to settle out the lime mud, and the white liquor is pumped to a white liquor storage tank for use in the digester.

A. Lime Kiln

The clarified lime mud slurry is pumped from the mud storage tank and is then vacuumed filtered to remove the sodium compounds and water. The high solids lime mud is then fed to a rotary kiln where it is dried and burned to drive off the CO_2 and recover the lime to be re-used in the recausticizing process. The lime kiln is currently permitted to fire natural gas, fuel oils containing less than 3.2 percent sulfur, and pet coke.

1. Control Equipment:

The lime kiln is equipped with an Electrostatic Precipitator to control particulate emissions. The lime kiln itself is considered a control device and is used to control the LVHC and HVLC gases at the mill.

a. Emission Limits and Proposed Periodic Monitoring

The lime kiln is subject to 40 CFR Part 60 Subpart BB, BACT, and 40 CFR Part 63 Subpart MM (MACT II). The lime kiln has the following limits:

Particulate Matter (gas)	0.035 grains/SDCF @ 10% O_2 and 22.0 lb/hr
Particulate Matter (oil, petcoke)	0.064 grains/SDCF @ 10% O_2 and 42.0 lb/hr
Sulfur Dioxide	40.7 tons/yr (12-month rolling total. Fuel oil firing of < 3.2 % sulfur content
Nitrogen Dioxide	190 ppmv @ 10 % O_2 and 94.8 lb/hr
Total reduced sulfur	≤ 3.1 lbs/hr and 8 ppm @ 10 %

	O_2
Opacity	≤20 % with one six-minute period up to 40% in any one hour period
HAPS	PM as a surrogate < 0.15 g/dscm (0.064 gr/dscf) @ 10 % O_2
VOC	0.69 lbs/ton of CaO_3 and 18.8 lbs/hr (as carbon)
CO	80 ppmv @ 10 % O_2 and 25 lbs/hr.
SAM	1.71lbs/hr.

A continuous emissions monitoring system shall be performed for opacity, SO2, TRS, Flow, and NOx, which shall meet the performance spec 5 of 40 CFR Part 60, Appendix B. Annual emission monitoring will be performed for PM. Once per 5 year emission monitoring testing will be performed for SO2, SAM, VOC, CO and NOx. Rock-Tenn is also required to monitor the three-hour block average for lime mud flow rate. Also, for sulfur dioxide, fuel receipts from the fuel oil supplier that certify sulfur content in every load received is required. Since this source is subject to both MACT I & MACT II, it is required to submit quarterly and semi-annual monitoring reports

IV. Paper Machine Area

The board mill utilizes two board machines to produce coated and uncoated paperboard from the bleached pulp. In addition to coated board, the Demopolis Mill can produce bleached Kraft market pulp.

A. Paper machines

Once pulp from the pulp mill has been refined through the addition of various compounds to reach the desired physical properties, it is pumped to a centrifugal cleaner system. This system cleans and removes other contaminates, the good stock is transferred to a collection tank where it is transferred through a pressure screen to the headbox of the paper machine. The headbox controls the manner in which the stock passes onto the paper machines wire to form a uniform paper mat. The water removed from the stock flowing down the wire drains into a collecting silo for re-use. After the paper web is removed from the wire it passes through two press sections, then to the drying section of the paper machine which is heated by steam from the plant. After the dryer section, the sheet passes through the calendars which compresses the paper to obtain the specified thickness and surface smoothness and is then wound on a reel drum.

1. Control Equipment:

The paper machines have no add on control equipment installed. Both machines are required to use clean water in the process.

a. Emission Limits and Proposed Periodic Monitoring

Since the paper machines have no specific limits, no periodic monitoring is necessary.

V. Utilities

Rock-Tenn's utility area consists of a liquid recovery phase and a power and steam generation phase. The following units are the components of the liquid recover system: Multi-Effect Evaporator, the No. 3 Recovery Furnance, and the No. 3 Smelt Dissolving Tank. The following units are components of the power and steam generation system: No. 1 Power Boiler, No. 2 Power Boiler, and No. 3 Power Boiler. The utilities provide support services, steam, and power for the facility.

A. Multiple-Effect Evaporator

Black liquor contains the residual pulping chemicals and dissolved organic substances from wood chips. Under normal operating conditions, the brown stock washer filtrate will have a solids content of 15%. For safety concerns Rock-Tenn does not fire liquor in the No. 3 Recovery Furnace unless it contains at least 70% solids. To raise the solids content the liquor is routed to a seven-effect system that includes two high solids concentrators. The condensate produced from black liquor evaporation is used in the brown stock washers and the salt cake by-product produced from the chlorine dioxide generation is added to the weak black liquor prior to the multiple effect evaporator system.

1. Control Equipment:

A condensate seal tank is vented to the low volume high concentration (LVHC) non-condensable gas system and Kraft pulping condensate from this tank are collected and sent to the turpentine decanter, and then pumped to the aeration stabilization basin for hazardous air pollutant (HAP) destruction.

a. Emission Limits and Proposed Periodic Monitoring

The No. 1 Evaporator is subject to 40 CFR Part 60 Subpart BB and 40 CFR Part 63 Subpart S (MACT I). All gases discharged from the Multiple-Effect Evaporator that contain total reduced sulfur in excess of 5 parts per million corrected to 10% oxygen are required by Subpart BB to be incinerated in the No. 1 or No. 3 Power Boilers. All HVLC and LVHC gases are to be collected and incinerated as required by Subpart S. Subpart S also requires the annual testing and monthly inspections of the HVLC and LVHC NCG system.

B. No. 3 Recovery Furnace

The No. 3 Recovery Furnace burns the organic compounds contained in black liquor to generate steam and recovers the sodium and sulfur compounds used in the Kraft cooking process. The black liquor from the multiple-effect evaporator system is first mixed with salt cake makeup in the saltcake mix tank prior to being heated and sprayed into the recovery furnace.

The recovery furnace and its operation can be broken down into several sections: furnace area, convective heat transfer area, combustion air control, black liquor handling, smelt removal and dilution, and air emissions control. The hot gases from the combustion zone pass through the steam generation zone, which includes super-heater, boilers, and economizer. The No. 3 Recovery Furnace produces steam by firing up to 2,160 tons of black liquor solids per day. The No. 3 Recovery Furnace is permitted to fire No. 2 Fuel Oil, and back liquor solids.

1. Control Equipment:

The No. 3 Recovery Furnace has an ESP for the control of particulate emissions.

a. Emission Limits and Proposed Periodic Monitoring

The No. 3 Recovery Furnace is subject to 40 CFR Part 60 Subpart Db (when firing fossil fuel), 40 CFR Part 60 Subpart BB and 40 CFR Part 63 Subpart MM (MACT II).

The No. 2 Recovery Furnace has the following limits:

PM	0.021 gr/dscf @ 8% O_2 and 44.9 lbs/hr
TRS	5 ppm @ 8% O_2 and 11.0 lbs/hr
NOx	110 ppm @ 8% O_2 and 199.9 lbs/hr
Opacity	20 %
SO_2	100 ppm @ 8% O2 and 252.9 lbs/hr when BLS is fired. The fuel oil sulfur content $\leq$ 0.05%
CO	300 ppm @ 8% O2 and 331.9 lbs/hr
VOC	0.04 lb/MMBtu and 43.2 lbs/hr (as carbon)

SAM	3.78 lbs/hr
HAPS	PM as a surrogate < 0.044 gr/dscf @ 8 % O_2

Yearly emissions tests will be performed for particulate matter. The No. 3 Recovery Furnace has a continuous opacity monitor (COMs) installed which records six-minute average opacities. The facility must maintain records of three hour block average black liquor firing rates for this unit. Since this source is subject to MACT II, it is required to submit quarterly excess emission reports. Rock-Tenn is required to install and maintain TRS and NOx CEMs which meet the requirements of performance spec 5 of 40 CFR Part 60 Appendix B. Rock-Tenn is required to submit quarterly excess TRS and NOx emission reports. Rock-Tenn shall perform and submit an emission test for SO_2, CO, VOC, and SAM once every five years. Rock-Tenn is also required to keep fuel receipts detailing the sulfur content of every load of fuel oil received.

C. No. 3 Smelt Dissolving Tank

The No. 3 Smelt dissolving tank uses weak wash to dissolve the inorganic residue from the combustion of black liquor solids in the No. 3 Recovery Furnace. It is equipped with two agitators to maintain uniform green liquor strength. The green liquor product from the smelt tank is pumped to a green liquor clarifier and then to the recausticize to be recovered as white liquor.

1. Control Equipment:

The vent stack in the dissolving tank is fitted with a scrubber system including an exhaust fan. The dissolving tank gases are routed to the wet dynamic fan scrubber where weak wash is used to absorb the gases and control the entrained particulate matter.

a. Emission Limits and Proposed Periodic Monitoring

The No. 3 Smelt Dissolving Tank is subject to 40 CFR Part 60 Subpart BB and 40 CFR Part 63 Subpart MM (MACT II).

The No. 3 Smelt Dissolving Tank has the following limits:

PM	0.12 lbs/ton BLS and 8.3 lbs/hr
SO_2	5.0 lbs/hr
TRS	0.033 lb/ton BLS and 2.3 lbs/hr
Opacity	≤ 20 percent with one six-minute period up to 40 percent in any one hour period
HAPS	PM as a surrogate < 0.2 lbs/ton BLS

Yearly particulate matter emissions tests are required to be performed. For TRS and SO_2, Rock-Tenn has installed a monitoring system which will measure and record three-hour block averages of the wet scrubbing weak wash flow rate to the fan and the fan rpm. Also, Rock-Tenn shall monitor the three-hour block average liquor firing rate. Rock-Tenn shall perform and submit an emission test once every five years. Rock-Tenn is required to maintain records of all three-block averages of wet scrubbing weak wash flow rate and three-hour block average liquor firing rate for five years.

D. No. 1 Power Boiler

The No. 1 Power boiler is a 282 MMBtu/hr boiler that generates steam and is permitted to burn natural gas, coal, No. 2 fuel oil, and wood waste. Also, this boiler acts as a backup incineration point for the LVHC and HVLC non-condensable gases

1. Control Equipment:

Flue gas quality from this boiler is controlled by a micromist scrubber and multiple venturis.

a. Emission Limits and Proposed Periodic Monitoring

The No. 1 Power Boiler shares a stack with the No. 3 Power Boiler and has several emission limits "bubbled" with the No. 3 Power Boiler.

The No. 1 Power Boiler has the following limits:

PM	1. Subject to ADEM Admin. Code R 335-3-4-.03 (0.12 lbs/MMBtu) when < 30% wood is fired. 2. When ≥ 30% of wood waste is fired, PM emissions are subject to ADEM Admin. Code R 335-3-4-.08. 3. ≤ 0.19 lb/Mlbs of steam assuming a steam enthalpy of 1,097 BTU/lb.
SO_2	1. SO2 Category II Counties. No person shall cause or permit the operation of a fuel burning installation in a SO_2 Category II County in such a manner that sulfur oxides, measured as SO_2, are emitted in excess of 4.0 lbs/MMBtu of heat input. 2. ≤ 152.31 lbs/hr, measured by a continuous emission monitor.
SO_2	The combined annual SO_2 emissions from this unit and from the No. 3 Power Boiler ≤ 320.7 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.
Opacity	≤ 20 % with one 6-minute period up to 40 % in any one hour period.
NO_x	The Combined annual NO_x emissions from this unit and from the No. 3 Power Boiler ≤ 317.2 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.
CO	The Combined annual CO emissions from this unit and from the No. 3 Power Boiler ≤ 691.3 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.

Rock-Tenn shall perform annual PM emissions tests. Rock-Tenn shall also install a SO_2, CO, and NO_x CEMs on this unit which measures these emissions in accordance with 40 CFR Part 60 Appendix F. For PM and SO_2 periodic monitoring, Rock-Tenn has elected to monitor and record the three-hour block average steam production rates, wet scrubber liquid flow rate for PM, and three-hour rolling average continuous SO_2 emission monitoring system value in lb/hr. A PM emission test is required once per year. A record of the 12-month rolling total CO, NO_x, and SO_2 shall be made. Rock-Tenn is required to submit a CO, NO_x, and SO_2 continuous emission monitoring system audit report within thirty days of the end of each calendar quarter and an excess emissions report quarterly.

E. No. 2 Power Boiler:

The No. 2 Power boiler is a 189 MMBtu/hr boiler that generates steam using natural gas and No. 2 fuel oil as the fuel source. It is currently out of commission and when operating it is used as a stand-by unit and to provide incremental steam production capacity during scheduled or unscheduled shutdowns of the other boilers.

1. Control Equipment:

There are no additional control devices on this unit.

a. Emission Limits and Proposed Periodic Monitoring

The No. 2 Power Boiler has the following limits:

Particulate Matter (gas)	0.12 lb/MMBtu and 2.36 lbs/hr
Sulfur Dioxide	Fuel oil sulfur content < 0.5%
Opacity	≤20 % with one six-minute period up to 40% in any one hour period

Rock-Tenn shall perform PM emission test once every five years. For sulfur dioxide, Rock-Tenn is required to obtain fuel receipts certifying sulfur content from every load of fuel oil received.

F. No. 3 Power Boiler

The No. 3 Power boiler is a 363.9 MMBtu/hr boiler that generates steam and is permitted to burn natural gas, coal, No. 2 fuel oil, and wood waste. Also, this boiler acts as an incineration point for the LVHC and HVLC non-condensable gases.

1. Control Equipment:

Flue gas quality from this boiler is controlled by a micromist scrubber and multiple venturis.

a. Emission Limits and Proposed Periodic Monitoring

This unit is subject to 40 CFR Part 60 Subpart D. The No. 3 Power Boiler shares a stack with the No. 1 Power Boiler and has several pollutants emission limits "bubbled" with the No. 1 Power Boiler.

The No. 3 Power Boiler has the following limits:

PM	< 0.073 lbs/MMBtu heat input.
SO2	1. < 1.0 lbs/MMBtus heat input. 2. The SO2 emission rate < 0.8 lbs/MMBtu heat input when fuel oil is the fuel fired. 3. When different fossil fuels are burned simultaneously in any combination, the applicable SO2 standard shall be determined by proration using the following formula: PSSO2 = [y(0.8)+z(1.0)]/(y+z) where: PSSO2 is the prorated standard for sulfur dioxide when burning different fossil fuels simultaneously in pounds per million Btu heat input derived from all fossil fuels fired, Y is the percentage of total heat input derived from liquid fossil fuel, and z is the percentage of total heat input derived from solid fossil fuel.
SO2	< 349.8 lbs/hr.
SO2	The combined annual SO2 emissions from this unit and from the No. 1 Power Boiler < 320.7 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis.
NOx	< 0.7 lbs/MMBtu heat input
NOx	The combined annual NOx emissions from this unit and from the No. 1 Power Boiler shall not exceed 317.2 tons/12 month rolling period. Using data from the CEMS, the

	facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.
CO	The combined annual CO emissions from this unit and from the No. 1 Power Boiler < 691.3 tons/12 month rolling period. Using data from the CEMS, the facility will calculate emissions on a tons-per-month basis. These emission numbers shall be used to calculate a 12 month rolling total.
Opacity	Opacity < 20 % except for one 6-minute period per hour of not more than 27 %.

Rock-Tenn shall perform annual PM emissions tests. Rock-Tenn shall also install a SO_2, CO, and NO_x CEMs on this unit which measures these emissions in accordance with 40 CFR Part 60 Appendix F. For PM periodic monitoring, Rock-Tenn has elected to monitor and record the three-hour block average steam production rates and scrubber liquid flow rate for PM. A PM emission test is required once per year. A record of the 12-month rolling total CO, SO_2, and NOx emission rates from the No. 1 Power Boiler and No. 3 Power Boiler shall be made.

Rock-Tenn is required to submit a CO, SO_2, and NOx continuous emission monitoring system audit report within thirty days of the end of each calendar quarter and an excess emissions report quarterly.

CAM

CAM applies to pollutant specific emission units that are subject to an emission limitation or standard where a control device is used to achieve compliance with an applicable emission limitation. The CAM rule requires facilities to monitor compliance indicators for emission units to provide reasonable assurance for compliance with regulatory emission limitations. This facility currently has units subject to CAM; however, they meet the exemption requirements.

There are two exemptions that apply to one or more emission units operated by the mill:

- The requirements of Part 64 shall not apply to emission limitations or standards proposed by EPA after November 15, 1990, pursuant to section 111 or 112 of the Clean Air Act (40 CFR 64.2(b)(1)(i)); and
- The requirements of Part 64 shall not apply to emission limitations or standards for which a Part 70 or 71 permit specifies a continuous compliance determination method (40 CFR 64.2(b)(1)(vi)).

The first exemption applies to emission limitations for air pollutants from NSPS or NESHAP proposed after November 15, 1990. The Mill operates several emission units subject to 40 CFR Part 63 – Subpart S, and MM. The following are the units subject to these standards:

- No. 3 Recover Furnace (PM & HAP): Subject to 40 CFR Part 63 – Subpart MM;
- Brown Stock Washer (HAP): Subject to 40 CFR Part 63 – Subpart S;
- No. 1 Bleaching System (Cl): Subject to 40 CFR Part 63 – Subpart S;
- No. 2 Bleaching System (Cl): Subject to 40 CFR Part 63 – Subpart S;
- No. 3 Smelt Dissolving Tank (PM & HAP): Subject to 40 CFR Part 63 – Subpart MM;
- No. 3 Lime Kiln (PM & HAP): Subject to 40 CFR Part 63 – Subpart MM;
- K-2 Digester System (HAP): Subject to 40 CFR Part 63 – Subpart S;
- No. 3 Multiple Effect Evaporator System (HAP): Subject to 40 CFR Part 63 – Subpart S

As a result, these emission units must comply with the monitoring requirements prescribed in the applicable standard rather than the requirements of 40 CFR Part 64.

The Mill also monitors scrubber flow continuously on a three-hour block average for the following sources as a parametric indicator for proper control of particulate matter emissions:

- No. 3 Smelt Dissolving Tank (X023);
- No. 1 Power Boiler (Z006); and
- No. 3 Power Boiler (Z013).

The existing periodic monitoring systems for scrubber flow satisfy the compliance assurance monitoring requirements for particulate matter emissions from these emission units. Furthermore, the existing periodic monitoring system for scrubber flow also satisfies the compliance assurance monitoring requirements for TRS emissions from the No. 3 Smelt Dissolving Tank.

Consistent with the requirements of the existing Title V Operating Permit, the Mill operates and maintains continuous monitoring systems for sulfur dioxide emissions from the No. 1 and No. 3 Power Boilers. Because these continuous compliance determination methods have already been prescribed in the existing Title V Operating Permit, the Compliance Assurance Monitoring rule does not apply to these pollutant specific emission units.

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John Abner
Industrial Chemicals Section
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May 7, 2008
Date